

The CHEMIST AND DRUGGIST

RETAILER - WHOLESALE - MANUFACTURER

859

28 Essex Street, Strand, London, W.C.2

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JULY 15, 1944

Annual Subscription (with Diary) 25/- Single copies 9d.

Interesting Events in Pharmacy. No 29



BENJAMIN FRANKLIN

BOSTON 1706 ————— 1790 PHILADELPHIA

One of the founders of American Independence, this truly remarkable man was equally eminent in the realms of Statesmanship, Diplomacy, Journalism, Science and Philosophy.

First to demonstrate that lightning and electricity are one, he invented the lightning conductor.

He was a member of the Royal Society of London and of the Academy of Sciences, Paris.

"Honour and fame from no condition rise."

BURGOYNE BURBIDGES

Established 1741. & COMPANY LIMITED, LONDON. E.6

On the 168th anniversary of America's independence, wish to pay a tribute to a great and powerful Ally

TAKA-DIASTASE

●

PARKE, DAVIS & CO. wish to announce that they now have supplies of Taka-Diastase, and that the following products are available:—

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Taka-Diastase, Pepsin & Pancreatin Tablets
(C.C.T. 296)

Each of the above tablets is supplied in bottles of 25 and 100.

Taka-Diastase Sedative Elixir (No. 198)

In bottles of 4 and 16 fluid ounces.

Taka-Diastase Liquid

In bottles of 4 and 16 fluid ounces.

Takazyma

In jars containing approximately 2 ounces.

●

PARKE, DAVIS & CO.
50 Beak Street, London, W.1
Inc. U.S.A., Liability Ltd.



Milton Bulletin No. 23

P.A.T.A.

PROTECT MILTON PRODUCTS FROM SUNLIGHT!

Milton Antiseptic

Exposure to the direct rays of the sun is harmful to Milton Antiseptic. Owing to the prohibition of cartons, therefore, window display is at present undesirable.

Half or counter display, however, is permissible. "Milton" is stabilised by a special process which ensures the retention of its effective strength for several years, and is packed in bottles which provide adequate protection from normal daylight and ordinary artificial lighting.

For window display use showcards. Excellent bottle reproductions can still be obtained. Write "Showcards Required" on your order.



Milton Denture Powder

Window display of Milton Denture Powder, in or out of cartons, is also undesirable. Sunlight does not affect its strength, as in the case of Milton Antiseptic, but it causes caking, so showcards should be displayed instead. Ask for these when requesting Milton showcards.

Adequate supplies of all Milton products are available in our factories, and there is only a few days' delay in the execution of orders.

Milton Antiseptic, 8d. and 1/11½d. Milton Ointment, 7d.


Milton Denture Powder, 1/3d. and 2/2d. Milton Dental Cream, 1/2d.

(The above prices include Purchase Tax.)

Milton Nasal Spray, 3/6d. (Free of Tax.)

All Milton products may be included in the £2 and £5 Bonus Parcels.

Milton Antiseptic Ltd., Chapel Lane, Sands, High Wycombe, Bucks



S.O.S.

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Phone
Kelvin 3661

Grams
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The advertisement features a collection of Crookes' Collosol Manganese products. In the center is a large, dark glass bottle with a label that reads 'COLLOSOL MANGANESE' and 'CROOKES LABORATORIES'. To its left is a box with the same branding. In the foreground, there are two smaller bottles and another box. To the right of the large bottle, five glass ampoules are arranged in a row. The background is a textured, mottled grey.

CROOKES' COLLOSOL MANGANESE
 a thoroughly established therapeutic
 agent for the treatment of
 BOILS · CARBUNCLES · ABSCESSES
 CHRONIC ULCERS · GONORRHOEA
 ACNE · PSORIASIS · ETC.
 Its action is tonic and stimulating



"I know it is difficult"

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SILATEX
SANTRON
MENSINOLE**

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PATA *For Feminine Hygiene*

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in ONE capsule!



VYKMIN Multiple-Vitamin Capsules are based upon an advanced formula and can be recommended with every confidence in cases of systemic vitamin deficiency.

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(continued overleaf)

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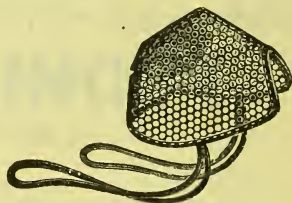
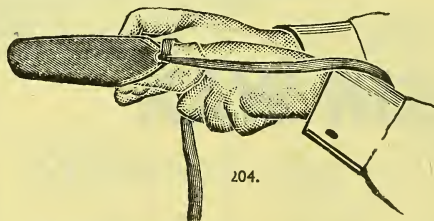
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Telephone: Grosvenor 1016

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and rendering the best possible
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Manufacturing Chemists
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OINTMENT 2/6 & 10/-
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20 - 2/6 100 - 10/-

All Prices include Purchase Tax

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**THE DAILY DOSES
MOUNT UP!**



**THE INCREASING
DEMAND MEANS
MORE PROFIT
FOR YOU!!**

Harley's Three Salts is health off the shelf, but if you haven't got it on the shelf you are missing large profits, because more and more people are asking for it daily.



Packed in attractive tins.
Retail at 1/10½, including
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*"The
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Spoon."*

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FOR ARTHRITIS
particularly the infective type

"S.B.T."

Brand Sterilised Solution

Prepared under Medical supervision
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Lancet 19.2.44, p. 264

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10 c.c. 10/-; 60 c.c. 50/-
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Today, as fifty years ago, the beautiful woman knows that 'Pomeroy' is the hall-mark of good taste. Pomeroy Beauty Products serve Beauty faithfully today, as they have done throughout these years. Supplies are very limited, but they are equitably distributed. We take this opportunity of thanking our friends in the Trade for their co-operation during these difficult days, and look forward to an early resumption of full supplies.

JEANNETTE POMEROY BEAUTY PRODUCTS

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SKIN FOOD • BEAUTY MILK • CLEANSING CREAM • DAY CREAM • LIPSTICK
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LIQUID
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PRODUCED

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**CERTAIN DEATH TO
FLIES, MOTHS
AND ALL
INSECTS**



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UNEQUALLED BY ANY
ON THE MARKET

IT'S A "NOMO" PRODUCT
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Agents Wanted

LARGE SIZE
BOTTLES TO
RETAIL AT

2/-

Seeing Pillar Box Red

has no unpleasant significance if it's
'DINKY' DYE . . in fact quite the
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'DINKY' shades (Khaki has been
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indeed for you.

3d.

Per Carton

TERMS:

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ORDERS WITH
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good presentation does its
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Do YOU know THE LITTLE CHAP?



A remarkable Scientific Formula
produces this amazing NEW Cleaner

**Today's Best Cleaner is
Today's Best Seller**



Medium and large
sizes retailing at

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Terms on
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"LITTLE CHAP" needs little introduction to your customers. They know this amazing new product as the stain remover that knocks spots off every other cleaner. Point out how it banishes stains and smears of grease, oil, paint, tar, without a trace, without discoloration or harm to delicate fabrics. Mention that it's non-inflammable, and non-evaporating—and so more economical. Then see how "LITTLE CHAP" ensures goodwill as well as good profits!

Made by
LONDON PHARMACEUTICAL LABORATORIES LTD.
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LITTLE CHAP
STAIN REMOVER



Established 1860

MANUFACTURERS OF
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Is a safe and dependable first-aid surgical dressing for
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it is a reliable and profitable item to handle, always

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6/8
ON THE
P.A.T.A.

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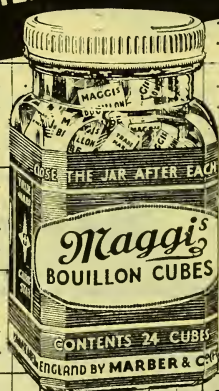
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REGD.
nutrition

VIRDOX, 75 KINGSWAY, LONDON, W.C.2

TO MAINTAIN THE PATIENT'S STRENGTH



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THERE IS NO SHORTAGE OF ANY OF OUR PREPARATIONS

	Retail Price	CHEMISTS' PRICE					
		Per unit			Per dozen		
	(inclusive of Tax)	Net	+	Purchase Tax	Net	+	Purchase Tax
ANTIPEOL							
ointment							
4 oz. tube	6/8½	4/2½	+	8½	50/5	+	8/5
40 gr. „	3/4½	2/1½	+	4½	25/3	+	4/3
20 gr. „	1/10½	1/2	+	2½	14/-	+	2/4
LIQUID							
40 c.c. bottle	3/4½	2/1½	+	4½	25/3	+	4/3
OPHTHALMO-ANTIPEOL							
40 gr. Nozzled Tube	3/4½	2/1½	+	4½	25/3	+	4/3
RHINO-ANTIPEOL							
20 gr. Nozzled Tube	2/9½	1/9	+	3½	21/-	+	3/6
ENTEROFAGOS (ORAL AND INJECTABLE)							
Box of 50 ampoules	19/-	13/3½		None	159/7		None
„ 10 „	4/3	3/-		None	35/8		None
„ 5 „	2/6	1/9		None	21/-		None
DETENSYL							
Tin of 500 tablets	39/-	24/-	+	4/-	288/-	+	48/-
Tube of 50 „	4/5½	2/8½	+	5½	32/4	+	5/3
ST. JAMES' BALM							
Tin of approx. 2½ oz.	2/10	1/11	+	4	22/6	+	3/9
„ „ 1 oz.	1/5	11	+	2	11/3	+	1/11
Tube	1/2	9	+	2	9/-	+	1/6

Carriage paid on all orders of 1 dozen or £1 and over.

Terms: NETT, monthly account.

MEDICO-BIOLOGICAL LABORATORIES LTD., LONDON, S.E.25

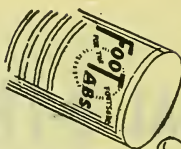
Warning

Yardley warn the trade that perfumes and lipsticks to which their name has been falsely applied, and sometimes purported to be bankrupt stock, are being offered by unscrupulous vendors.

Purchasers of such goods are liable for prosecution and Yardley would CLOSE THE ACCOUNT of any customer offering them for sale.

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Yardley Products can only be purchased direct from YARDLEY & COMPANY LTD. LONDON



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(AND MANY UNDER)**

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FOR THE **FOOTSORE**

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6-8-6-B


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BRILLANTINE
HAIR CREAM
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Most KLEEWARE
products are moulded
from KABROLOID
Moulding Powders
manufactured by
D. & M. Kleemann
GmbH.

P & M KLEEMANN LTD

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B.B.



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SULPHADIMETHYLPYRIMIDINE

A new sulphonamide of low toxicity used with success in:—

Primary and secondary pneumonia.

Meningococcal meningitis.

Haemolytic streptococcal infections.

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Ampoules of 0.1 gramme (in 3 cc.) Boxes of 6 and 25

Products of

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the best known, readiest selling, effective moth damage preventive.

The public have proved the efficacy of MOTHAKS. Millions use them year after year, and enjoy immunity from moth damage to clothing and general household fabrics.

MOTHAKS are advertised consistently in over 100 newspapers and women's magazines.



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Telephone: Hunts Cross 1321

Telegrams: "Sanitas, Liverpool"

In these trying times —



INDICATIONS

General fatigue and debility, hypertension, infective conditions, night blindness.

PACKINGS AND PRICES

80 tablets.. .. 3/4½
250 tablets.. .. 9/6
1000 tablets.. .. 30/7½

(Including Purchase Tax) **PATA** List

CAROVIT
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CHLOROPHYLL TABLETS

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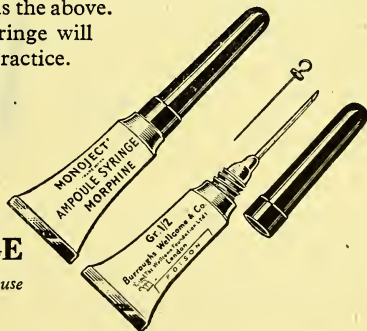
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NEWS OF THE WEEK

Fertiliser Order Revoked.—The Minister of Agriculture and Secretary of State for Ireland have revoked the Nitrogenous Fertilisers Order, 1943. The effect is that it is now no longer necessary to secure the consent of a county War Agricultural Executive Committee to apply or use any nitrogenous fertiliser on any land between September 1 and December 31 in any year.

Blood-transfusion Window Displays.—Chemists in Oldham, through the local branch of the National Pharmaceutical Union, have been approached to give window displays aimed at encouraging blood donors to come forward. They are to be invited to enrol volunteers.

Pharmacy Act Fine.—At Howth, co. Dublin, Eire, recently, Trevor Walsh, the Medical Hall, Howth, was fined £10, with 3s. costs, on charges of failing to employ a qualified pharmacist and selling a poison without being qualified to do so.

Pharmacists to Help at Blood Bank.—An opportunity is offered to pharmacists, men and women, in the Manchester area, who can

spare a few hours weekly to attend at the Blood Bank, Manchester Royal Infirmary, to help in the preparation of blood plasma. The work includes sterilisation of apparatus, sharpening of needles, cleansing and sterilisation of containers, service with mobile units, etc. Pharmacists who volunteer will be instructed in the work and processes necessary under the supervision of Dr. J. F. Wilkinson (director of Blood Transfusion Service, North-west Region), who wishes to arrange a rota of pharmacists who could give about two hours' service weekly at any time convenient to them. Names should be sent to the Association secretary (Mr. T. Miller, 3 Wyngate Road, Hale, Cheshire).

Teats Used for Rubber Dummies.—Mr. Hynd asked the President of the Board of Trade (Mr. Hugh Dalton) in the House of Commons on July 5, whether he was aware that rubber dummy teats were being sold in drug-stores and peddled by canvassers to chemists; that there appeared to be a prodigality of rubber prophylactic goods;

that many chemists were unable to obtain necessary supplies of teats and valves for feeding bottles; and whether, in view of the importance of the latter in the interests of national health, some inquiry would be made into the general position of priorities for pharmaceutical rubber.

The Parliamentary Secretary to the Board of Trade (Captain Waterhouse): The manufacture of rubber dummy teats is prohibited. . . . Arrangements have recently been made to increase raw materials available to manufacturers of rubber teats and valves.

Mr. Hynd: Is not the Minister aware that, although the manufacture of dummy rubber teats has been prohibited, they are still being openly peddled round druggists' shops and in many cases have all the appearance of having been adapted from bottle teats which chemists are unable to obtain for bottles already in stock?

Captain Waterhouse: I am aware such allegations have been made and my right hon. Friend the Minister of Supply is having the matter looked into.

Alleged Embezzlement.—At St. Albans City Sessions, recently, Gwylin Perris Pritchard was placed on probation for two years on a charge of embezzling £1 1s. 3d. from his employers, Boots, Ltd., on January 7, and fined £5 on each of four other similar charges with costs in each case.

One Hundred Aspirins.—A verdict that he took his life while the balance of his mind was disturbed was returned at an inquest at Bromsgrove, Worcs, on June 18, on William Southall, Spring Street, Cradley, who was stated to have taken 100 aspirin tablets.

Dublin-made Penicillin.—Penicillin produced in Dublin has already been used with success on some thirty patients in Dublin hospitals who had been suffering from septic wounds and ulcers. The drug has been produced at the botanical section of University College, Dublin, by Drs. Oliver Roberts, M.Sc., and Diarmuid Murphy, M.Sc., who were assigned the task of producing penicillin by the Eire Medical Research Council in January. Labouring under considerable difficulties (being without the help of skilled assistants), the two doctors set to work using agar produced in Eire. They could not even import the mould strain and test organism from England owing to war-time restrictions. After the first batches of penicillin had been made available from the Dublin laboratory, clinical tests were carried out in the city hospitals by specially

selected teams of medical men, and results have been made available to on the Irish medical journals. The two research workers are now producing fresh quantities of the drug every five or six days. Details of their work have appeared in the *American Press*, with the result that one of the large drug manufacturers in the United States has written inquiring about the method of production in Dublin. The Eire Medical Research Council has extended its grant for the continuation of the work until the end of the year.

Employees to Approach Ministry Directly. Speaking at a meeting of the Newcastle Branch of the Association of Pharmaceutical Employees, on June 25, Mr. M. Jackson (a member of the National Advisory Council of the Association and of the Central Pharmaceutical War Committee) disclosed that the consultative committee representing the A.P.E., the Association of Scientific Workers and the National Union of Distributive and Allied Workers, "could not accept the view that the Joint Standing Committee of the Pharmaceutical Society and National Pharmaceutical Union, as presently constituted, could speak for employees." It was proposed, he said, that discussions should take place direct with the Ministry of Health, urging the need for a strong employee organisation. The fundamental issue for employees was recognised by the Trades Union Congress and organisations affiliated thereto. For the first time proposals concerning pharmacy were being submitted to the T.U.C., and this would have the result that, when legislation was framed, the contacts now being made would ensure that the views of employee pharmacists were taken into account. The conditions in retail pharmacy in the future would have to compare favourably, he said, with those in public services, but there was need for the proper recognition of the public pharmacist. The establishment of a rate of pay that would assist in stabilising pharmacy in the post-war years was occupying both sides of the Joint Industrial Council for Retail Pharmacy at the present time. Now, with a larger number of women entering the profession, the principle of equal pay for equal work should be established, and women themselves should be prepared to give practical support to trade union organisations. Employees, he concluded, could only play their part in future developments through the trade union movement. Mr. M. Webster (secretary of the Newcastle Branch of the Pharmaceutical Society) occupied the chair at the meeting.

TOPICAL REFLECTIONS

ings in Australia

two attractive accounts of openings for pharmacists in Australia (pp. 45, 52) merit careful consideration of young qualified people who wish to make the best use of their powers after the war. The outlook for proprietors of small pharmacies in Great Britain is, it must be admitted, not altogether promising. Three factors—"leap to eyes." The beginner, anxious to lay out capital to the best advantage, cannot compete on equal terms with large limited companies for the possession of a lease in a prominent shopping centre; there is already a shadowing of limitation in the permitted number of shops; and there will be a long—perhaps a prolonged fight—to prevent bureaucracy from obtaining a monopoly hold on commerce. For the past twenty years or so knowledgeable friends have given me to understand that Australia is a land of opportunity for the young; and this opinion is borne out by your contributor's statements. The author of the article on Queensland has had the good fortune to

deal with wholesalers so generous as to be almost altruistic: as far as that part of the world is concerned, we must really revise the old maxim that there is no friendship in business. While some men work best in a team, there will always be others whose bent is towards individual adventure. Experience in warfare tends to strengthen this bent. During 1914-18 I had evidence of the fact that a return to the routine of ordinary commercial life would be irksome after the strenuous life of one of the Forces. There, then, is a practical suggestion for the surprising.

sunburn

The monograph on sunburn in the third issue of the *Journal of Health* (pp. 37-38) is, if internal evidence may be judged, not written by a pharmacist. He (or she) would have been more interested in the methods of preventing and alleviating the effects of excessive exposure to direct sunlight. Though it is some years since I did any original work in either of these directions, I may recall the fact that attempts have been made in clinics to obtain strengthened exposure to ultra-violet light without the production of erythematous symptoms. Fluorescent solutions of various composition have been used, but opinions on their effectiveness are far from unanimous. The incalculable factor appears to be the sensitivity of the patient's skin, a

factor tending to upset ideas derived from the behaviour of solutions tested apart from the human subject. Substances such as cadmium sulphide, "phosphorescent stimulating" rather than yielding fluorescence, have also been tried. It is hardly necessary to add that sunburn can be a very troublesome ailment. For a comprehensive selection of applications to be used after sun-burning, "Pharmaceutical Formulas," Volume II, may be consulted.

Dalton

Your readers owe Mr. H. Price thanks for remembering the centenary of John Dalton's death, and for giving so concise an account of his career (p. 39). Much might be written on this pioneer in chemistry: those who wish to refresh their memories about him will find noteworthy appreciations in Mr. J. H. Franklin's address from the chair of the British Pharmaceutical Conference in 1931 (*C. & D.*, 1931, II, 93-94) and in an article by the late Mr. William Kirkby on pp. 16-17 of the same volume. It is of interest to remember, at a time when the benefits of university education are becoming so widely available, that neither Dalton nor Priestley, situated as they were, would have been admitted to either of the then existing English Universities. "How can a man be hid?"—a saying attributed to Confucius—comes to mind. The lectures on pharmaceutical chemistry mentioned by Mr. Price were, it is satisfactory to know, given a publicity quite extensive for those days: they were advertised in the "Manchester Guardian" of December 4, 1824, and a syllabus was printed. Tickets for the first course of "about fifteen" lectures cost a guinea each. It was announced that the lecturer, after explaining the first principles of chemistry, would "proceed to apply them to investigations respecting the *Materia Medica*, and to other purposes relating to the profession." His lectures, though much appreciated by his colleague Thomas Turner, F.R.C.S., were, it appears, not quite so highly esteemed by some of his students, for beginning at 7 p.m. they were likely to continue for two or even three hours. Some of the men who passed through his laboratory were distinguished in later life: the names of Lyon Playfair, Angus Smith, John Edward Taylor and James Woolley are still familiar. It is appropriate that a street in the heart of Manchester bears the name of this great citizen and scientist.

Xrayser

LEGAL REPORTS

Unlabelled Drink- and Smoke-habit Cures.

—At Colwyn Bay sessions on July 5, William Porritt, who also traded under the name of R. Fear, 25 Lawson Road, Colwyn Bay, appeared on three summonses of selling preparations claiming to cure drinking and smoking habits, without affixing labels or enclosing leaflets describing the constituents. An inspector of the Society was stated to have written to the Lawson Institute, Lawson Road, applying for details of the drink-habit cure. Asked to fill in a questionnaire as to health and family medical history, she did not do so, but sent £1, for which she received a number of powders in blue and white paper coverings. The powders could be secretly administered, it was claimed, in tea, milk, or any beverage. They were found to contain potassium bromide and lactose, and were merely mild sedatives. The second case concerned a cure for the smoking habit. After sending £1, another inspector of the Society received a packet of tablets of which iron was the main constituent. In the third case application was made to a Monomark address in London, but the reply came from R. Fear, Colwyn Bay. For the defence it was argued that the summonses related to medicines; medicines were a cure for an ailment, disease, infirmity, or injury. The preparations were a cure for a habit, and the analysts' certificates had no bearing on the case as they were not claimed to be medicines, and it was contended that there was no case to answer. A fine of £2 was imposed on each charge, plus £5 5s. costs. Notice of appeal was given.

Inhalant Sold at Market Stall.—At Hitchin police court, on June 27, Ralph Toyor, Leighton Buzzard, pleaded not guilty to charges of selling a preparation Sniffit (claimed to relieve headaches, toothache and neuralgia when inhaled), without a label bearing the appropriate designation of the substance or a description of its ingredients, and of selling it from a stall at Hitchin market place. The preparation was described on the bottle as "Sniffit, an improvement relating to smelling salts," and as "the only sure cure for toothache, headache and neuralgia." A card above the stand bore the words, "Prov. Patent: This is not smelling salts but authorised by the Board of Trade as an inhaling medicine." An inspector of the Pharmaceutical Society bought a bottle for 2s. 6d. and revealed his identity. Mr. Toyor then produced two letters from the Board of Trade relating to

the sale of the article as a toilet preparation. The letters replied to a request from defendant by stating that the preparation was classified as a medicinal preparation and was not subject to the Toilet Preparation Order, 1943. The inspector examined the preparation and came to the conclusion that it contained cotton wool impregnated with ammonia and some other substance; had since been analysed. Defendant stated that he was a coachbuilder by occupation but had placed the preparation on the market several months ago, after trying it out on friends. It contained ammonia, oil of eucalyptus, oil of cloves, and colouring matter, and he claimed it was very effective. He was fined £2, with £1 is. costs, on each charge.

Halibut Oil in Tonic Syrup.—A fine of £8 with £8 18s. 6d. costs, was imposed at Derby borough court on July 4 on McClure Young & Co., Ltd., manufacturing chemists, Bollo Bridge Road, London, W.3, for offence against the Food and Drugs Act, 1938, in falsely describing on a label the contents of Crescendo vitamin tonic syrup. A plea of "Not guilty" was put forward. Evidence was given that on April 24 a food inspector visited the pharmacy of the Derby Pioneers' Industrial Society, Ltd., Northgate, and there purchased three bottles of the syrup. On the labels of the bottles was a formula stating what the contents were, and included in the formula was halibut liver oil, 11 8 for each fl. oz. On analysis, it was found there was only 11 8 oil in each fl. oz. The chief chemist for Messrs. McClure, Young said the company had been established about twenty years, and the vitamin tonic syrup was made under personal supervision. The firm purchased vitamin concentrate containing vitamins A and D and, by using it, the syrup had been made stronger with vitamins A and D than was made with halibut liver oil. The cost was actually more than if halibut liver oil had been used. At one time the company had used halibut oil, but when the oil became short in supply they had started using vitamin concentrate. Then, when vitamin concentrate had become short, they had used halibut oil again. Actually they had two types of labels, one for when halibut oil was used and the other for when vitamin concentrate was used, and possibly the wrong labels had got on to the bottles. The magistrates announced that they found the case proved.

TRADE NOTES

onic Cup.—Cheritone cherry-flavoured cup is available from the Cheritone Ltd., 149 Farringdon Road, London, E.C. 4.

Anti-blight Spray.—George Monro, Ltd., 11, Northam Cross, Herts, direct attention to sprayable cuprous oxide as a preventive light on potatoes and tomatoes.

ifty Recipes.—"What You Can't Get—Can Make" is the slogan put forward by Verdiers, Ltd., in recommendation of their booklet "Sales and Salon Profits," which they invite inquiries.

oliday Closing.—The offices and works of Lofthouse & Saltmer, Ltd., Hull, will be closed from July 29 to August 7, inclusive. During this period only urgent orders will be attended to.

inquiries to Wholesalers in Future.—Tampax, Ltd., Belvue Road, Northolt, Middlesex, point out that there is no sole distributing agent for Tampax, inquiries which should be sent through wholesalers.

deliveries Delayed.—Owing to heavy demand and bottle shortage, Andrews Dental Co., Hampden Park, Eastbourne, state that they are much behindhand with deliveries of the 1s. 10d. size. Refills and the smaller size can be dispatched by return.

ole Distributors.—Johnson Agencies (Proprietaries), Ltd., Clarendon Works, London, state that they are the sole distributors for Nocturn tablets. Showings are at present available for chemists who have had stocks.

Mosquito Repellent.—Dimethylphthalate, which is claimed to be the most effective mosquito repellent, is now being manufactured in a new plant specially constructed by Reichhold Chemicals, Inc. At present, all supplies are being reserved to meet the needs of the Armed Forces.

Purchase Tax Changes.—Glaxo Laboratories, Ltd., Greenford, Middlesex, state that, by a decision of the Customs and Excise authorities, Glucodin is now exempt from purchase tax. Stock bought as from July 10 is tax-free, but stock already in the hands of retailers should be sold plus tax. Glucodin becomes subject to purchase tax from July 10, as follows: Pack of fifty tablets, 5s. 6d., plus 8d. tax.

Operative Procedure Diagrams.—Johnson & Johnson (Great Britain), Ltd., Slough, in the collaboration of the staff of the

U.S. publication, "Surgery, Gynecology and Obstetrics," have issued, under the title "Operative Procedure," a collection of 100 pages of illustrations showing various stages in typical standard operations. The life-like diagrams in line-engraving on good paper are noticeably different from those usually found in surgical works, and it is obvious that much care has been taken by surgical experts to choose the essential steps in the operations for illustration. The book should be as popular in this country as the original volume is in America.

Business Changes

DR. G. O. RICHARDS, Ph.D., B.Sc., A.R.I.C., has joined the staff of Allen & Hanburys, Ltd.

COLGATE-PALMOLIVE PEET Co., Jersey City, U.S.A., has appointed Mr. Roy W. Peet to be vice-president in charge of research and development.

MR. A. REDDINGTON SAMUELS has been appointed general sales manager to W. J. Bush & Co. (Canada), Ltd., Montreal. Mr. Samuels joined the company in London in 1915 and went to Canada in 1931.

APPLICATION FOR LICENCES.—Mr. John Skilling has applied for a licence to continue selling made-up medicines (among other goods) at a business previously carried on by Elizabeth R. Jones at 76 Cumming Drive, Mount Florida, Glasgow.

Proprietary Articles Trade Association

Alterations to Protected List.—*British Schering, Ltd.*, Atophan tablets, tubes of twenty, 40s. 6d. doz., tax 6s. 9d. doz., inclusive retail price 5s. 1d. Atophan balsam, 40s. 6d. doz., tax 6s. 9d. doz., i.r.p. 5s. 1d. Neutralon, 3½-oz., 29s. 3d. doz., tax 4s. 10½d. doz., i.r.p. 3s. 8d. Neutralon belladonna, 3½-oz., 31s. 6d. doz., tax 5s. 3d. doz., i.r.p. 3s. 11d.

Ridge's Food, Ltd.—Manufacturers are now marketing only a 1-lb. size tin of Ridge's food, at 2s. 6d., 24s. doz. (exempt from tax).

C. & D. QUIZ NO. 32

1. Who was the first professor of pharmacognosy to the Pharmaceutical Society?
2. What is Berlin blue?
3. What is pink salt?
4. What is psilomelane?
5. Who first isolated arsenic?
6. What is mastic?
7. What is mephitic air?
8. Who discovered hydrogen peroxide?
9. What does the suffix "wich" ("wych") mean in English place names?
10. What is minium?

(Answers on p. 78)

BIRTHS

BILLINGTON.—At Edgbaston maternity home, Birmingham, 15, on July 5, the wife of F. A. Billington, M.P.S., 17 Langley Road, Langley Green, Oldbury, of a son.

WELSH.—At Avoca, Bellsdyke Road, Larbert, on June 30, Minnie (*née* Reid), the wife of John T. Welsh, M.P.S., of a son.

DEATHS

BROCKLESBY.—On June 18, Mr. David Brocklesby, M.P.S., 7 Stotford Road, King's Heath, Birmingham, 14, aged sixty-six.

CARMODY.—At Ferbane, Offaly, Eire, recently, Mr. John Joseph Carmody, M.P.S.I. Mr. Carmody qualified in 1934.

CROOKE.—In June, as a result of enemy action, Miss Olive Louisa Crooke, M.P.S., 12 Victoria Mansions, Victoria Street, Christchurch, New Zealand. For many years Miss Crooke was in charge of the pharmaceutical department of the Lady Hardinge Hospital, Delhi, India.

DOCKER.—At his home at Amersham, on July 8, Mr. Frank Dudley Docker, C.B., one of the founders of the Federation of British Industries, and its first president.

LEVESLEY.—On May 16, Mr. Charles Ewart Levesley, M.P.S., 65A Glackwell Street, Kidderminster. Mr. Levesley qualified in 1912.

MACPHERSON.—At Edinburgh Royal Infirmary, on July 3, John Henderson Macpherson, Ph.C., M.B., Ch.B.Ed., 2 Craiglockhart Road North, Edinburgh, aged forty-six. One of the most accomplished of the younger Scottish pharmacists, Dr. Macpherson was apprenticed in his native Perthshire village of Comrie, qualifying as a chemist and druggist in 1921 and as a pharmaceutical chemist a year later. Following upon retail experience in Scotland and in the south, he established a new dispensing business at Craiglockhart Road in 1932. Always an exponent of pharmacy at its best, he was appointed to the Scottish board of examiners of the Pharmaceutical Society in 1936, and continued as an examiner until he graduated in medicine at Edinburgh University in January 1944, having completed his five years' study while he remained in business. It was a mark of distinction that he was at once appointed a resident physician at Edinburgh Royal Infirmary, but lung trouble developed, to which he succumbed after six months

of illness. In the war of 1914-18 served in the Royal Flying Corps. At cremation on July 6, the Pharmaceutical Society was represented by Dr. (resident secretary in Scotland), and many other prominent pharmacists attended were Dr. J. J. Blackie (chairman of the board of examiners); Mr. W. Beattie (a member of the North British executive, and chairman of the South-eastern Scottish Branch of the Societal Federation); Dr. M. V. Hunter; Mr. David Harley. Dr. Macpherson survived by a widow, a son and a daughter.

NEWTON.—Recently, Mr. Thomas Newton, M.P.S., 35 Norlands Avenue, Anlaby High Road, Hull, aged seven. Mr. Newton qualified in 1890 and began an apprenticeship with his brother, the late Mr. G. R. Newton, M.P.S., at Witham, Hull, and commenced business on his own account in Chariot Street, Hull, in 1914. In 1914 he moved to Marfleet. Mr. Newton was secretary of the Hull Chemists' Association for a number of years and its president in 1921.

STEVENSON.—By enemy action in June, Mrs. Vera Stevenson (*née* Menchik), widow of the late Mr. R. H. S. Stevenson, M.P.S. Mrs. Stevenson had been the holder of the Women's Chess Championship of the World since 1926.

WILLIAMS.—In June, as a result of enemy action, Mr. Francis Christopher Williams, aged fifty-eight. Mr. Williams qualified as a chemist and druggist in 1912.

WILLS

MR. WILLIAM ADAMS, J.P., 30 High Street, Shrewsbury, left £25,000 with net personalty £8,663.

MR. EDWIN GRAHAM, M.P.S., 426 Park Road, Burnley, Lancs, left £4,000 with net personalty £2,905.

MR. JAMES MCBRYDE, M.P.S., 198 Marlborough Road and 34 St. Botolph's Street, Colchester, left £3,864, with net personalty £1,077.

MR. WILLIAM THOMAS HOPPS, M.P.S., Little Court, Glan-y-mor Road, Penrhy Bay, Carnarvon, left £32,279, with net personalty £23,265.

DR. GEORGE LESLIE EASTES, M.B.Sc., Gerrards Cross, Bucks (chairman of Laboratories of Pathology and Public Health, Ltd., Harley Street, London), left £32,256, with net personalty £13,627.

COMPANY NEWS

EDANA PHARMACEUTICALS, LTD. (P.C.).—Capital £100. Chemists, druggists, perfumers, etc. Joseph Barker, director. R.O.: Five Mills, Longside Lane, Bradford.

H. HURST (CHEMISTS), LTD. (P.C.).—Capital £1,000. Chemists, druggists, etc. Mas and Flora Hurst and John H. Hurst, S., directors. R.O.: Codnor, Derby.

H. COOPER, LTD. (P.C.).—Capital £500. Chemists, druggists' sundriesmen and general merchants. Max Gottschalk, Knightsbridge, London, S.W.11, and Mas Marns, M.P.S., directors.

WAZELL CHEMICAL PRODUCTS, LTD. (P.C.).—Capital £500. Manufacturers of and dealers in chemicals, drugs, etc. George H. Wazell and Alexander S. Gay, directors. R.O.: 30 City Road, London, E.C.1.

WEST END PHARMACY, LTD. (P.C.).—Capital £500. Wholesale or retail chemists, druggists, etc. Mrs. Liesbeth Tell and Mas Hill, M.P.S., directors. R.O.: 107 Lower John Street, London, W.1.

ROBERT KENNEDY (COATBRIDGE), LTD. (P.C.).—Capital £500. To acquire a chemical business carried on as "Robert Kennedy" at Coatdyke. Directors not named. R.O.: 527 Main Street, Coatbridge.

THEODORE ST. JUST & CO., LTD. (P.C.).—Capital £1,000. Manufacturers of and dealers in aromatic and fine chemicals, etc. Guy A. Desvaux and Irene J. Soper, directors. R.O.: 1 Shorrols Road, London, S.W.6.

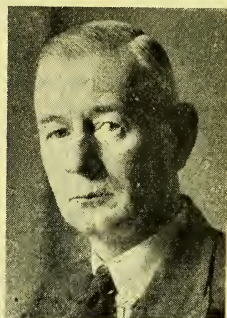
ALBERT MOSS & CO. (ESSENCES), LTD. (P.C.).—Capital £3,000. Manufacturers of and dealers in essences, chemicals, etc. Emma J. and William E. E. C. Mossman, and Clara Laycock, directors. R.O.: Higher Hillgate, Stockport.

J. WHITE, LTD.—The report of the directors for the year ended March 31, 1944, shows that the balance of the profit and loss account amounts to £35,113, from which £15,130 for a final dividend has been deducted, leaving £19,983. Net profit amounts to £72,443, making a total available profit of £92,427. This has been appropriated as follows: Interim already paid, £50, and reserve for taxation, £48,000, leaving an available balance of £35,677. Of this balance the directors recommend payment of a final dividend of 7½ per cent, making 12½ per cent. for the year ended forward, £20,547.

PERSONALITIES

MR. JOSEPH GILLET, M.P.S., was elected president of Blackburn Rotary Club on July 5.

MR. J. J. STONE, M.P.S., 257 Niddrie Mains Road, Edinburgh, was recently elected a member of Edinburgh Town Council. Mr. Stone qualified in 1920. In addition to his civic activities, he is well known as a dog fancier, specialising in Kerry Blues. At a Midlothian Red Cross Show on June 24 his dog "Inshoven Tim" gained three first awards, two seconds, and a special award for the best dog weighing over 25 lb.



CAPTAIN ERIC W. BARLOW, son of Mr. John V. Barlow, M.P.S., 1 Accrington Road, Burnley, Lancs, won the tennis championship at the Royal Iraq Sporting Club recently.

DR. N. P. ALLEN has been appointed superintendent of the metallurgy division, National Physical Laboratory. Since 1935 Dr. Allen has been senior research metallurgist to the Mond Nickel Co., Ltd., Birmingham.

PROFESSOR H. RAISTRICK, F.R.S., has been appointed honorary scientific adviser on penicillin production to the Ministry of Supply. Professor Raistrick is a member of the General Penicillin Committee and professor of biochemistry at the London School of Hygiene and Tropical Medicine (University of London).

DR. WILLIAM HENRY DOW was awarded the gold medal of the American Institute of Chemists, 1944, at the annual meeting of the Institute recently. Dr. Dow is president of the Dow Chemical Co., a director of the American Chemical Society, and a member of the American Institute of Chemical Engineers.

MR. H. M. HAMES, M.P.S., and Mrs. Hames, 14 Granville Street, Boston, Lincs, celebrated their golden wedding on July 5. Mr. Hames received his training at Cambridge, and went to Boston forty-five years ago, first as manager to Mr. C. F. Fooke, M.P.S., later as proprietor of the business at 65 West Street which he still carries on.

NATIONAL PHARMACEUTICAL UNION

A MEETING of the Executive of the National Pharmaceutical Union was held in London on June 27 and 28, Alderman W. J. Tristram in the chair. Reports of meetings of the Accounts and Price List Committees were received and approved. The secretary's report upon matters that had arisen since the previous meeting was received.

Proposals for Working Conditions

THE SECRETARY reported that the joint negotiating committee of the Joint Industrial Council for Retail Pharmacy had prepared a schedule of minimum wages and working conditions for submission to a meeting of the full Council on July 3. Although the schedule had been agreed by representatives of both the employers' and trade-union sides on the committee, it might not be acceptable to the full representation of one or both sides of the full Council. Arrangements had been made for the employers' side to meet to consider the schedule in detail, and instructions were given to the N.P.U. representatives as to the policy they were to adopt at this meeting and that of the full Council. In view of the postponement of the N.P.U. Branch Delegates' Conference, consideration was given to the steps that should be taken to secure the necessary mandate from branches to support this programme of wages, and it was resolved to defer full consideration of the matter until the next meeting of the Executive.

Early Closing Association

The Executive Committee considered a request that the N.P.U. should send to the Home Secretary an expression of opinion in support of a resolution adopted at the annual meeting of the Early Closing Association in January, pressing for an amendment of the existing Shops Act by advancing by one hour the hours of 7 p.m., 8 p.m., and 9 p.m., provided in section 5 (2) of the 1912 Act, and section 1 (1) of the 1928 Act respectively. It was resolved to support the resolution, and the secretary was instructed to send a letter to the Home Secretary accordingly, with the proviso that it should continue permissible to supply urgent medicines and medicinal and surgical requisites after the normal shops' closing hour, as under the present Act.

Business Services and Branch Organisation

Further consideration was given to proposals (connected with the purchasing of businesses) submitted by the Business

Services Committee to the Executive at previous meeting. The proposals were considered by the solicitors to the Union and the secretary was authorised to obtain Counsel's advice thereon if necessary. The Executive next considered whether in view of the position of the N.P.U. as employers' organisation, the present branch system of local organisation gave satisfactory results from the representative point of view, or whether any action should be taken in regard to the appointment of local branch officers. It was resolved to refer the matter to the Special Organising Committee.

Sixth Addendum Ointments

THE SECRETARY reported that, on June 31, Mr. Noble had called on Dr. Hampden (Secretary, British Pharmacopœia Commission) to urge that in the event of change being made in the formula for Sixth Addendum Ointments, as long a period of notice as possible should be given so as to keep duplication of stock to a minimum. Subsequent to this interview the General Medical Council had extended indefinitely the period during which alternative formulas might be used, and it had been arranged with the Minister of Health that, for National Health Insurance purposes, pricing offices should, on further notice, price for the old ointments unless the chemist stated the prescription that he had dispensed. The Addendum preparation.

Veterinary Preparations

THE SECRETARY reported upon a conference he had attended with representatives of the National Veterinary Medical Association, at which the question of distribution of certain veterinary products had been considered. Arising out of the meeting arrangements had been made whereby the products under consideration would be made available for distribution through chemists upon terms that would enable them to supply a veterinary surgeon at the price at which he would normally obtain these products from the manufacturers concerned.

It was reported that approximately thirty claims on the Air Raid Medical Assistance Fund had been notified since the previous meeting. One had been completed by a payment of £10; details of the others, some of which were likely to involve total-loss payments, were awaiting

CHEMISTS' FRIENDS ASSOCIATION

ETING of the council of the Chemists' Friends Association was held in London on 20, Mr. F. J. Smith in the chair. The council accepted an application for the inclusion of L.82 diabetic lemon and orange essences in the Chemists' Friends list, and authorised the directors of N.P.U., Ltd., to negotiate an agreement with the manufacturer concerned.

To meet the requirements of the Registrar of Friendly Societies in respect of registration as a trade union, the new draft of Rules of the proposed new constitution and bye-laws of the Association, as submitted by the secretary, was approved. The rule dealing precisely the form of security in which the funds of the Association could be invested.

Council Representation and Membership

THE SECRETARY reported that Mr. W. T. R. Aberdeen, had been appointed a representative of the Scottish Pharmaceutical Federation in place of Mr. John Weir; an appointment had been made at a meeting of the Federation held in Glasgow on May 17. An application for manufacturer membership of the C.F. Association by a firm of manufacturing chemists in Yorkshire was deferred to the next meeting to enable the secretary to obtain further information about products offered for inclusion in the C.F. list. The following applications for additions to the schedules existing C.F. agreements were approved: Moore Medicinal Products, Ltd., Coda-sphen analgesic tablets and Coda-sphen analgesic tablets (extra rapid); J. W. Simpson & Co., Ltd., Simpson's Niblain (two-way internal and external chilblain remedy). A manufacturer whose name is already included in the list submitted an application for the addition of a non-alcoholic tonic to his schedule; the application was accepted. Moore Medicinal Products, Ltd., asked the council to delete Sperolamycin tablets from the C.F. list, and in view of the special circumstances appearing in this matter the request was granted.

In correspondence between a C.F. manufacturer and the Central Price Regulation Committee about trade discounts was considered by the council, which resolved to instruct the secretary to arrange an interview with the manufacturer concerned, whereby the matter could be discussed and a further report submitted to the Council at its next meeting.

The sale of a C.F. product in the grocery department of a co-operative society, which also owned and controlled registered pharmaceutical premises, was reported. Correspondence had passed between the manufacturer and the society concerned, but the reply of the manufacturer had not been satisfactory, and it was therefore resolved that the secretary should be instructed to arrange an interview with the manufacturer and report back.

RECENT RESEARCH

Vivicillin in Veterinary Practice.—Preliminary reports are given by Lustig-Lendva ("Veterinary Record" May 27, p. 178), of successful experiments, extending over four months, with two proprietary preparations of living *Penicillium notatum*: Pennotin (P.T.) for external use, and Vivicillin (P.C.) for parenteral use. Approximately 100 cases were involved. In feverish conditions in mice and guinea-pigs two or three injections of P.C. usually effected a cure. In pneumonia, rhinitis, and against the secondary invaders in canine distemper, highly satisfactory results were obtained—though no definite effects were achieved in canine meningitis. Pennotin (P.T.), applied in gauze packings to open uncleaned wounds was claimed to be not without benefit, and the good effects were not impaired by debris; in some instances the administration appeared to promote healing.

Viscosity and Particle Shape.—Lauffer, in a paper read at the annual meeting of the American Chemical Society in April, described the use of tobacco-mosaic virus as a material for use in testing the relation between viscosity and macromolecular structure. The virus particles are rod-shaped bodies large enough to be seen and to be accurately measured with the electron microscope. In solution, the particles are known not to be appreciably hydrated. Two preparations at different stages of aggregation were examined. The average ratio of length to thickness of the particles of each preparation was determined by direct measurement of the micrographs. The results are claimed to provide "a reasonably unambiguous direct experimental confirmation of the correctness of Simha's equation" (a quantitative mathematical expression relating the viscosity of a suspension of rod-like particles to the ratio of length to thickness of the rods and to their degree of hydration).

RE-EXPORT OF IMPORTED ESSENTIAL OILS

FOLLOWING are details of a scheme for the re-export of imported essential oils, which has been approved by the Ministry of Food. The Ministry state that they propose that releases of oils against export licences shall commence from August 1, 1944, and that for the first quarter, beginning on that date, the following imported oils will be available for export: Distilled oil of lime, oil of eucalyptus. It is hoped to make available, later on, certain other oils which will be notified to the trade in good time.

(1) The Ministry of Food have informed the London Chamber of Commerce that they expect to be able later this year to release for re-export purposes reasonable quantities of certain essential oils now being imported under the Essential Oil Control Scheme. (2) The oils available for re-export will be announced from time to time, and the following procedure has been arranged by the Ministry of Food in consultation with the Essential Oil Advisory Committee and the Essential Oil Importers' Section of the London Chamber of Commerce. (3) The announcement of oils available for re-export will be made as far ahead as possible, and in any case not less than one month before the date on which the granting of export licences will be considered. The prices at which the oils will be available to exporters will be communicated by circular to all datum period distributors of each particular oil. Exporters will, of course, appreciate that, in inviting orders from overseas, they must necessarily make it clear that acceptance is conditional upon an export licence being obtained.

Definitions

(4) The following definitions will be applicable: *Exporter*.—By an "exporter" is meant the trader who obtains the order from the overseas importer, or the trader who supplies the duly accredited buying agent in the U.K. of an overseas importer, such agent being remunerated exclusively by a commission from his overseas principals. *Datum Period Distributor*.—By "datum period distributor" is meant, as in the case of the Essential Oil Control Scheme for home trade, the trader who entered oils of the kind in question for Customs for importation during the two years ended August 31, 1939. *Approved Representative*.—By "approved representative" is meant a trader who, under the Essential Oil Control Scheme for home trade, has been appointed by an overseas shipper to act as his representative in the importation of oils into the United Kingdom, or who is qualified under the scheme to act as an approved representative for oils imported by the Ministry. (Note: It is possible for an exporter to be a "datum period distributor" or an "approved representative" or both.) *Supplier*.—By "supplier" is meant any trader who, not being a datum period distributor of that oil, is nominated by the exporter to supply him with oil.

Export Licence

(5) The export of all essential oils will continue to be subject to Board of Trade export licence, for which application should be made on the usual form to the Export Licences Department, Board of Trade, 3 Bank Buildings, Princes Street, London, E.C.2. (6) The exporter must attach to the application the original or from overseas, e.g. cable, letter, etc., which will be returned after the application has been considered. The order must bear a date more than two months before the date of application. In the case of large compound orders, a letter from the applicant giving particulars of the order, so far as essential are concerned, may be acceptable but proof must be required. (7) The exporter must also forward with his application a letter nominating datum period distributor or supplier in the United Kingdom from whom he wishes to receive the oil and this will, so far as possible, be the source or sources from which he obtained pre-war supplies of that oil. (8) If a licence is withheld, the applicant will be informed by the Ministry of Food, if the reason is that the export quota of the oil is exhausted, or because export price quoted cannot be approved.

Provision of Oil

(9) A quarterly quota will be released of each oil that can be made available for export. When applications for licences for any one oil exceed the quarterly quota, the oil will so far as is practicable be allocated on a *pro rata* basis against applications at the sole discretion of the Ministry of Food. (10) If, on the other hand, applications received up to the date announced are for less than the quantity earmarked for export, further applications will be considered at any time up to the commencement of the next quarter so long as there is a balance of oil available. (11) If the exporter's application is not received in time for him to receive a share of the quota for the quarter, or if his application for the quarter is not granted in full, his application renewed within four days of the beginning of the next quarter will receive special consideration. (12) The Ministry will make the oil available by instructing the Essential Oil Allocation Control to release oil from stock held under the control scheme; such oil will only be released to a datum period distributor of that oil. If the trader named by the exporter is not a d.p.d. for that oil, the Ministry will ask the named trader to nominate someone who is a d.p.d. of that oil. The Control will then be requested to release from a stockholder to the appointed d.p.d.

Prices and Margins

(13) As previously mentioned, the prices to be charged by approved representative ("a.r.'s") to the d.p.d.'s will be communicated by circular to those concerned and in the case of an a.r. delivering to the appointed d.p.d. will include the a.r.'s usual margin and a sum to cover the landing charges, rent, interest and

ved allocations or buffer stock commission are incurred. • This additional sum, which take the place of the fixed contribution, will payable to Allocations Control on completion the delivery to the d.p.d. The same conditions apply to a stockholder who may be a d.p.d., not an a.r. The margin of d.p.d.'s will be same as is allowed for the home trade control, where repacking is necessary the scale will that laid down in Circular No. 9 of the Regulations for the Importing and Distribution of Essential Oils, dated May 1, 1944, with any

amendments that may from time to time be published by Allocations Control. (14) If the d.p.d. is supplying the exporter through a supplier named by the exporter, he will be required to share his margin in equal proportions with that supplier: except that, where a broker is nominated as the supplier, he will only receive the normal selling brokerage of 1 per cent. from the d.p.d. and his buying brokerage of $\frac{1}{2}$ per cent. from the exporter. (15) Exporters will be permitted to fix their own prices to their customers. The exporter may have to justify price.

NORTH BRITISH BRANCH ANNUAL MEETING

The annual meeting of the members of the Pharmaceutical Society resident in Scotland was held in Edinburgh on June 28, John Anderson (vice-chairman) presiding.

THE VICE-CHAIRMAN said he found himself presiding over the annual meeting in regrettable absence of the chairman (Mr. Hay, Aberdeen). A suggestion had come from Mr. Hay that a memorial to the late Mr. Rutherford Hill—something in the form of a plaque—should be prepared and placed in a prominent position at 36 York Place. Mr. Hay's suggestion was, he thought, a good one which should be remitted to the Executive to be carried out.

Preparations for the Future

The annual report which had been submitted to the Council, approved, and circulated, did not represent, said Mr. Anderson, anything like the full volume of work done by the Executive. Much useful work was done in committee and behind the scenes by the secretary and staff; no one ever appealed to York Place in vain. He felt members had no reason to be at all dissatisfied with their activities, handicapped as they were with war-time difficulties. No immediate results might have been achieved from their labour, but they knew they had prepared the ground, had planted seed, and that something might come up which would benefit posterity in spite of possible departmental "tares." The Executive had, of course, anticipated the Beveridge Report and the Government's Health Plan and had their own Health Services Committee. Since then, however, the Scottish Joint Committee, so wisely planned and created by the chairman of the Standing Committee (Mr. Bennett), had made the small committee redundant. He thought it was imperative now that pharmacists should throw off an apathy which they all now existed and was really chronic.

The scrutineers reported that 3,092

nomination papers had been issued by the resident secretary. Sixty-four members had been nominated, of whom forty-three signified their willingness to act if elected (see *C. & D.*, June 24, p. 665).

On June 9, 3,078 voting papers had been issued. Of these 862 were returned, of which twenty-four were informal. The following was the result of the poll:—

GILMOUR, Andrew Brown	..	..	479
BENNETT, Frederick W. M.	..	..	469
GUTHRIE, Thomas	..	..	458
JACK, James	..	..	451
CULBERT, William Spence	..	..	404
DRUMMOND, Charles Gray	..	..	396
MACKENZIE, Thomas	..	..	384
ANDERSON, John	..	..	367
McADAM, Robert	..	..	355
BEATTIE, William Andrew	..	..	341
HAY, William Fowlie	..	..	319
MILNE, James Robertson	..	..	301
MURRAY, Alexander	..	..	292
McDONALD, John Bayne	..	..	290
COWIE, Robert James	..	..	268
CULBERT, Hugh Spence	..	..	263
LAMB, George Thomas	..	..	257
WALKER, Frederick	..	..	254
BUICK, Charles Alexander	..	..	253
MAIR, William	..	..	252
RITCHIE, Andrew Wemyss	..	..	245
CAMPBELL, Colin	..	..	239
MILLER, Thomas Campbell	..	..	229
HOME, Sydney George	..	..	228
ELDER, William Todd	..	..	226
MILLER, Elizabeth	..	..	220
TEESDALE, James	..	..	218
CURRIE, David	..	..	214
CURRIE, Archibald	..	..	205
FARQUHAR, James	..	..	205
FRASER, Henry James	..	..	202
SPENCE, George Leith Shivas	..	..	192
ANDERSON, John Melvin	..	..	188
CLARK, James Smillie	..	..	173
ROBERTSON, Archibald	..	..	170
KERR, David	..	..	162
WILLIAMSON, James Montgomery	..	..	160
MARSHALL, Thomas	..	..	143
McKEILAR, Alexander McIntyre	..	..	138
MILLER, Drysdale Peter Buchanan	..	..	135
HUGHAN, Samuel	..	..	121
SMITH, Thomas	..	..	110
AUSTIN, Patrick Laurie	..	..	104

On the motion of Mr. ROBSON, seconded by Mr. HALL, the report was adopted, and THE CHAIRMAN thanked the scrutineers.

The Chairman then declared that the first eighteen candidates (in bold type), together with the president of the Society (Mr. Frederick George Wells, London), vice-president (Mr. James Fallows McNeal, Amersham), and Mr. Adam Alexander Meldrum, Aberdeen, *ex-officio*, would constitute the Executive for the year 1944-45.

Discussion

MR. TEESDALE again urged the advisability of holding the annual meeting in the afternoon instead of the forenoon, and of holding it in various centres so as to enable pharmacists in other areas to attend. He thought more publicity should be given to the findings of the Executive on this subject. In connexion with the proposed National Health Service, one of the most important matters concerning pharmacists at the moment, he said, was remuneration, and he would ask the Executive to use its influence towards establishing a Joint Industrial Council for Scotland.

MR. HUDSON, Dumbarton, disapproved of the term "North British Branch" applied to Scotland; he thought it was quite out of date. He also thought that Scottish interests should be looked after by a Scottish pharmacist in Parliament.

MR. A. B. GILMOUR, Glasgow, suggested that the Executive election should be the same lines as the Council election.

MR. GUTHRIE, Glasgow, pointed out that a difficulty might arise in that the number of the North British Executive to be elected was dependent on the number of members of Council resident in Scotland. The difficulty might, however, be got over and the matter was well worth looking into.

MR. BOYD, Edinburgh, thought a committee of the new Executive should be formed to go into the whole question of the constitution, with a view to modernisation.

THE VICE-CHAIRMAN agreed that the points should be attended to and suggested that, in the first place, Mr. Meldrum at Dr. Tait might make a preliminary inquiry in London and report back to the Executive.

On the motion of MR. IRONSIDE, a vote of thanks was accorded to the chairman.

PUBLIC PHARMACISTS' N.H.S. MEMORANDUM

THE following is the text of a memorandum on National Health Service issued by the Guild of Public Pharmacists.

1. The Guild of Public Pharmacists is of the opinion that only a comprehensive social medical service, under the direction of the State, can fully meet the health needs of the nation. They realise, however, that the introduction of such a scheme at the present time presents very great difficulties, and therefore welcome the proposals contained in the White Paper which, while falling short of the ideal, will undoubtedly lead to further developments in the direction of a complete social service. The Guild is fully in agreement with the principle that the service should be available to all, irrespective of means, and is prepared to co-operate in every way possible to secure a complete and efficient pharmaceutical service in the hospitals.

2. In dealing with the question of the supply of medicines to patients, it will be found necessary to consider separately the pharmaceutical requirements of the hospital services and of the domiciliary service. The hospital pharmaceutical service should be conceived as a unified organisation throughout the country; and its administration should involve qualified personnel at all levels. Ultimate responsibility to the

controlling authorities and the Ministry should not pass through medical or other non-pharmaceutical channels. Administrative duties undertaken by pharmacists should not be limited to the functions of supplies or equipment officer, but a directorate of pharmaceutical services should be set up, staffed by pharmacists and operating at the Ministry and in each local authority area.

Standards of Qualification

3. Although no clear indication is given in the White Paper, it is reasonable to assume that no lower standard of pharmaceutical qualification than that required under the National Health Insurance scheme will be approved for the service as a whole; that standards at least as high shall be applicable to the hospital service is essential. It is, therefore, logical to anticipate that the pharmaceutical work necessary in all hospitals will be undertaken by, or be under the close personal supervision of, pharmacists, and will be conducted in properly equipped pharmaceutical departments. In fact, it should be obligatory upon all hospitals participating in the service to employ an adequate number of pharmacists and to provide the necessary facilities for this purpose. I

majority of hospitals it will be necessary for the pharmacists to be employed full-time; only in the smallest hospitals could part-time pharmaceutical service be practicable. It is not deemed advisable that pharmacists should undertake such duties as biological investigations, radiography, clinical photography, etc. It is to be hoped that in the future all hospitals will be of such a size that a minimum staff of two pharmacists will be required,

of Responsibility

The ranking of a pharmacist-in-charge should be such that he is responsible only to the governing authority of the hospital service to which he belongs. Subject to this responsibility he should have complete administrative control of his department.

It seems reasonable to expect that, if the grouping of hospitals occurs, the setting-up of central buying and distributing agencies for each group will be considered. It is essential on the grounds of efficiency and economy that the control of the pharmaceutical sections of such agencies should be in pharmaceutical hands. Moreover, the experience of a hospital pharmacist well fits him for employment as a medical supplies and equipment officer.

In the planning and administration of the service provision must be made for effective pharmaceutical advice and direction on all questions affecting pharmacy. Generally, pharmaceutical representation in such bodies as the Central Health Services Councils should include hospital as well as retail pharmacists. In the case of the Joint Authorities (in Scotland, the Regional Hospitals Councils and the Joint Hospital Boards) the pharmaceutical personnel should be drawn exclusively from the ranks of hospital pharmacists. A Director of Pharmaceutical Services, with adequate powers and status, should be in charge of the pharmaceutical work of each Joint Authority. In addition to such advisory officers, consultative committees of appropriately qualified pharmacists should be set up at the various levels.

7. It will be seen, therefore, from 2, 3, and 6 above that the services of pharmacists are essential in three main directions, namely:—

(a) *Administration*.—Directors of Pharmaceutical Services and members of advisory committees should be appointed from pharmacists of wide experience used to co-operation with medical personnel on terms of equality and familiar with methods of consultation

and negotiation with the governing bodies.

(b) *The purchase of drugs, dressings, instruments, appliances, medical equipment, etc.*, i.e. a Medical Supplies and Equipment Officer in grouped Joint Authorities' hospitals or the chief pharmacist in a voluntary hospital. Such posts would be best filled by pharmacists already experienced in similar work under existing hospital authorities.

(c) *Practical work in connexion with the preparation, storage and dispensing of drugs, dressings, etc.* This can be undertaken by any pharmacist acquainted with the requirements of hospital pharmacy.

8. The inspection of hospitals having been advocated in the White Paper, the Guild raises no serious objection, but makes the proviso that pharmaceutical departments should be inspected only by inspectors holding pharmaceutical qualifications.

Health Centres

9. No very definite indications have been given up to the present of the probable size and scope of the proposed health centres, it is impossible to give any detailed suggestions regarding the supply of medicine to patients attending them. Nevertheless, the Guild is strongly of the opinion that, in order that the maximum benefits shall accrue to the patients, a pharmaceutical department should be an integral part of every centre. Only by having a pharmacist in attendance on the premises can the doctors avail themselves fully of the consultative and advisory functions of the pharmacist. The advantage to the patients in being able to obtain their medicines on the spot is so obvious as to need no stressing. Patients, however, should have the free choice of having their prescriptions dispensed at the centre or at their local pharmacy.

10. The Guild suggest that the practice at present in operation regarding the dispensing of prescriptions of hospital out-patients should continue. Undoubtedly a considerable number of the "casual" patients will, in future, go to the general practitioners or the health centres, instead of to the hospitals' out-patients' departments, but those requiring specialist treatment will also require specialised medicines, which can only be provided by the hospitals' pharmaceutical departments. The reduction in numbers and the provision of adequate dispensing staff will remove the principal objection to the present system, i.e. excessive waiting.

11. Uniform conditions of service and scales of salaries, nationally applied, are urgently required for all pharmacists employed in hospitals.

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CXLII JULY 15, 1944 NO. 3362

The fact that goods made of raw materials are in short supply owing to war conditions are not advertised in this paper or described in its editorial columns should not be taken as an indication that they are necessarily available for export.

Conference Chairman's Address

The choice of "The Education of the Pharmacist" by the chairman of the British Pharmaceutical Conference (Mr. Brindle) as the subject of his opening address is appropriate. As we have had occasion to remark in former years, it is a cardinal feature of the Conference that each chairman in turn brings into focus a new aspect of one or more of the many subjects with which the Conference is concerned; and Mr. Brindle, as a distinguished member of the scholastic profession, has a right to draw attention to educational issues. In his opening paragraph he throws down a challenge by observing that, so far as he is aware, no very active steps are being taken officially to follow the lead of the members of any other professions and prepare for the future by carefully examining the present educational position in pharmacy and planning for the future. Yet reports indicate that the council of the Pharmaceutical Society gives considerable attention to its examination syllabuses and makes numerous changes, actual or prospective, in them. The chairman's meaning is, we infer, that the Council's educational policy for the present one of patching rather

than of thorough overhaul. If this is so, what is the remedy? Is there anywhere in pharmacy a sufficient grasp of educational requirements as a whole? One possible step to take would be to call in educational experts to advise in integrating the requirements of pharmacy with those of other professions, and especially of the professions most nearly related to it. As Mr. Brindle points out, little notice was taken of pharmaceutical education by the Committee of Inquiry set up by the Council in 1937.

Quality of Entrants

Most of the general considerations in the address will obtain ready assent. Drawing on his experience, the chairman notes that pharmacy has attractions for "a considerable number of the better-educated pupils in the secondary schools." But the quality of entrants varies widely. It ranges "over all types from the lesser intelligent who are always struggling to pass their examinations and some of whom never qualify, to the highly intelligent who take everything in their stride, and, experiencing no difficulty, proceed to the higher examinations, eventually to acquit themselves with distinction . . ." As a member of a university, Mr. Brindle naturally emphasises the value of a university education in training a student "in such a way as to enable him to train himself" and in teaching him "to think along right lines." This type of education takes time, "and some technical training and immediate technical efficiency must be sacrificed for it." Nevertheless, the chairman is convinced that ultimately "the properly educated student will become more efficient even as a technician than the one who has had a more or less intensive technical training." From these remarks we pass to the detailed proposals which form the larger part of the address.

The chairman is in favour of "a single registrable qualification to carry with it the title of Pharmaceutical Chemist." This proposal, though not new, is presented in a new light by being linked with an apportionment of time for the studies requisite for obtaining, in one case, the Society's diploma, in the other, a university degree. It will perhaps make this part of the address

easier to grasp if we present Mr. Brindle's time schedules in tabular form. Premising that the future student will leave school at eighteen, he outlines the following schemes—

Ph.C. Diploma

Leaving school at age	..	18
Compulsory national service till age	18½ or 19	
Course for Ph.C. diploma till age	..	20½ or 21

University Degree

Leaving school at age	..	18
Compulsory national service till age	18½ or 19	
Course for degree till age	..	21½ or 22

The question that at once arises on glancing through these tables is: where does apprenticeship come in? Mr. Brindle is in favour of placing apprenticeship after qualification. While recognising that there is "a strong body of opinion" that would make it follow the Intermediate examination, he objects that academic studies would thus be interrupted and that it might be difficult for students "to pick up the threads again." If, then, apprenticeship is to be served after obtaining a degree or diploma, what should be its duration? If three years, "no intelligent youth," declares the chairman, "would dream of entering pharmacy." Accordingly it is suggested that the possible maxima are two years if taken before a qualifying examination course and one year if taken afterwards: "these will probably become more or less standardised periods." Many of our readers will no doubt be ready to point out difficulties in starting an apprenticeship at the age of about twenty-one.

One thing is certain: by whatever name the proposed post-graduate training in a pharmacy might be called, the training would not be apprenticeship as we have known it. Leaving educationists to wrestle with the implications of Mr. Brindle's time schedules, we desire to express our appreciation of the fundamental soundness of his conception of education. He utters a wise caution against cramming students with factual knowledge. The passage, too long for quotation in full, may be summed up in these words: "We are in danger of turning out a technician who is so full of facts memorised to pass an examination that he has neither the taste nor the capacity for extending his knowledge afterwards." Members of the two Boards of Examiners can, we believe, confirm this statement.

On the Shelf

A VIRTUAL stop was put on the supply of quinine by chemists in August 1942. The intention was to reserve strictly for use of malarial patients a compound which was after the fall of Java to the Japanese, in short supply in all United Nations markets. Under the Control of Cinchona and Cinchona Products and Synthetic Substitutes (No. 1) Order (S. R. & O. 1942, No. 1604) it became illegal to use any variety of cinchona bark, any of the alkaloids of cinchona, their salts or derivatives, totaquine, quinetum, cinchona fufuge, or "any synthetic product or material which, according to current medical opinion, is recognised as a specific for the prevention, alleviation or cure of malarial infection, except on a medical prescription, or for certain specified users. Returns had to be made of all stocks in excess of 25 oz.

So far, good. But we have reached July 1944, almost two years after the Order was enforced. The ban still holds. The world supply position is substantially unchanged, not only by the large-scale synthesis of mepacrine but, potentially at least, by the reported synthesis of quinine in the United States. We have heard of one holder in Scotland of stocks valued at £12. They are still on his shelves. He has received no hint from the Ministry of Supply what he is to do with the material. Even with some Services malarial subjects returning from Normandy as a result of a recurrence of the malady, there is little likelihood of any great demand through prescription, especially in view of the number of cases for which mepacrine is now being prescribed. Every chemist presumably has some stock, however small, of quinine or other cinchona product which remains "frozen" by the Order. Is this material valuable to the Ministry or not? They appear to order these things better in the United States, where there was a nationwide recall of quinine stocks from druggists and an impressive total of material was amassed from a host of individual contributions, many of them trivial. If there is no intention to do something of the sort in this country, then the quinine ban should be lifted.

BRITISH PHARMACEUTICAL CONFERENCE

eighty-first British Pharmaceutical Conference was held in London on July 11, H. Brindle, B.Sc., Ph.C., F.R.I.C., in the presence of Mr. F. G. WELLS (president of the Pharmaceutical Society, who extended a warm welcome to members, congratulated them on the fact that since the first meeting of the Conference in Bath in 1864 its continuity had never been broken. London was the first to have members there that day. H. BRINDLE then gave his Conference address (see p. 70).

Vote of Thanks

MR. H. BERRY, in moving a vote of thanks to the Chairman, said that he did so with a sense of great appreciation of the matter of his address, for it concerned a subject on which the speaker was an expert. The Chairman had lived through and taken an active part in one very important phase in pharmaceutical education: the period immediately following the war of 1914-18, the transition of the teaching of pharmacy from optional, training in non-recognised schools to the present condition of compulsory curricula and recognised schools. Mr. Brindle was at the present time one of those who were pioneering pharmacy as a university, and striving to establish it as securely as other, long-established, subjects such as medicine, the arts, chemistry and the biological sciences. As many of them knew, that task was not an easy one, for pharmacy had been late in making an appeal for university recognition, yet such recognition was important for developing the science. They were now approaching the end of the period of post-war planning, and in his address the Chairman had given them an excellent survey of the general educational situation as he saw it, and a commentary on the effect of that situation upon pharmacy in particular. The occasion was an opportune one to debate the suggestions of the speaker in detail, but, broadly speaking, he found himself in general agreement with him. Pharmacy, like other professions, must review its educational requirements in the light of the various schemes for educational changes in education. Certain changes would have to be made if the subject was to retain its place in the scientific world, and in particular retail pharmacy would have to take certain important decisions. The Chairman had commented on the subject of apprenticeship—a subject which had caused increasing concern in the schools of pharmacy during the last

twenty years. There was, he thought, general agreement that apprenticeship was urgently in need of review. Teachers undoubtedly regarded it as a very weak link in their educational system. He, like the Chairman, had always maintained that there was no adequate substitute for what one might term the old-fashioned apprenticeship when the apprentice-master taught the pupil every section of his craft. No college course could be a substitute for it, but unfortunately, in the majority of cases, that type of apprenticeship no longer existed, and schools, in designing courses of instruction, had been forced to ignore it in the training for the final qualifications.

Universities' Plans

Most of the universities had been discussing their post-war problems, and were already prepared with tentative plans to operate when peace came. He knew that to be true of their own university of London, where the board of studies in pharmacy had already reviewed the future for the degree in pharmacy, and had put forward some very important proposals. The period ahead of them was pregnant with possibilities, and he was optimistic for the future of the higher scientific branches of pharmacy if they would only keep pace in their educational system. The fundamental groundwork of training given to pharmacy students in chemistry, physics, and the biological sciences in the intermediate stage, and the technical application of them in the final stages, could and did produce a valuable type—a person capable of learning to specialise in the many fields which constituted modern pharmacy. It gave him great pleasure to move the vote.

MR. T. E. WALLIS, who seconded the vote of thanks, said that Mr. Brindle had an intimate acquaintance with educational methods. He had evidently spent much time and thought in studying many reports upon the educational plans which had appeared. They were grateful to him for having carefully examined them and for so clearly expressing his views. His address had stimulated their thoughts in several directions. Life, said Mr. Wallis, was so crowded with the discharge of duties that were ever pressing upon them that there was little time for quiet thought and reflection, and as they approached the period of reconstruction they were particularly indebted to their Chairman for placing his thoughts before them.

EDUCATION OF THE PHARMACIST

Abstract of the address given by the Chairman of the British Pharmaceutical Conference (Mr. H. Brindle, B.Sc., F.R.I.C., Ph.C.) at the Conference annual meeting in London, July 1937.

EDUCATION is the concern of everyone and it is gratifying to realise that the number of people who are feeling that it is a concern of theirs is increasing rapidly. The last twelve months have seen the publication of the report of the Norwood Committee on the curriculum and examinations in secondary schools. In the same period we have had a Government white paper on education and an Education Bill which is just in the process of becoming an Education Act. Medicine and chemistry have been active on their educational fronts, and in the last few weeks have issued reports of bodies appointed by them to consider their special educational problems. Has the pharmacist any educational problems at the present time? So far as I am aware no active steps are being taken officially to prepare for the future by examining the present educational position in pharmacy and planning for the future. Ultimately pharmacy will stand or fall as the result of the educated man passing judgment upon the individual pharmacist and for self-preservation, if for no other reason, we must keep abreast of the times with our educational policy. The Committee of Inquiry which was set up by the Council of the Pharmaceutical Society, in October 1937, evidently considered that pharmaceutical education came within its terms of reference, but only to the extent that about one-fiftieth of its report dealt with this subject, although an extremely useful appendix giving a history of pharmaceutical education and examination was published with Part II of the report in 1941. The educational problems confronting pharmacists are not identical with those with which the medical profession is grappling, but they are of similar difficulty, present some of the same problems, and merit the same careful scrutiny.

Preliminary and Secondary Education

As a result of the Government proposals and the general advance in education, modification of the secondary school education of the embryo pharmacist will occur in the near future quite apart from any directing influence from within pharmacy. The Norwood Committee has recommended the abolition of the School Certificate examination as it is known at present. The intention is that it should be replaced by an internal examination, i.e. one held by the authorities of the school itself, that this

examination would be taken by all scholars and that there should be no limit to the number of subjects. It is probable that it will be impossible for professional bodies or universities to make any use of this examination as an entrance or preliminary examination. Under the proposal of the Norwood Committee, boys and girls who intend to enter a university or professions, amongst which we may include pharmacy, will stay at school until the age of eighteen or more and at that age take a school-leaving examination which will be a standard in each subject approaching, but somewhat below, that of the present High School Certificate which it is proposed should be abandoned. There would appear to be some divergence of opinion amongst the universities themselves as to their attitude towards this school-leaving examination. The majority will utilise it as an entrance examination. Other universities are inclined to accept this school-leaving examination as the equivalent of the Intermediate B.Sc. or B.Pharm., in which case the student on entering the university will commence immediately the study of the subjects of his final examination. If such a student remains at the university for three years, as is intended, he will certainly receive a better and wider technical training than at present.

Technical Efficiency or Lifelong Training

The universities which are likely to arrange that the first year shall be an Intermediate B.Sc. or B.Pharm. year consider that more emphasis should be laid on wide general education. They will probably demand that, for entry upon a degree course in the university, the student should have passed the school-leaving examination in five subjects, one of which shall be English. The remaining four will be suitably divided between the so-called arts and science subjects. This type of education has a lifelong influence, but it takes time, and some technical training and immediate technical efficiency must be sacrificed for it, but I am convinced that ultimately a properly educated student will become more efficient even as a technician.

I have had considerable experience in interviewing prospective entrants to pharmacy, and I find that pharmacy has many attractions for a considerable number of the better educated pupils in the secondary

ols. I feel strongly that every effort should be made to encourage such boys and to train for pharmacy. One method of maintaining the educational requirements for entry at the highest possible level shortening the period of apprenticeship. This part of the pharmacist's education is certain to be profoundly affected by the changes in general education. If the proposals of the Norwood Committee are accepted, as they are almost certain to be, the Higher School Certificate examination will be replaced by a school-leaving examination of a standard somewhat lower in each subject, to avoid early specialisation. It is probable that the universities and the professions have no particular interest in the School Certificate which will normally be taken at the age of sixteen, but will replace the new School Leaving Certificate, normally taken at eighteen, as an entrance examination. The Pharmaceutical Society would do well to consider the advantages of accepting the School Leaving Certificate examination in lieu of its own Intermediate examination in the subjects of chemistry, physics and biology, but also demanding English and another optional subject. This would strengthen the basis for the technical and further education to follow.

Pharmaceutical Chemist and Druggist Course and Examination

The course and examination cover five subjects, in three of which a relatively high standard has to be attained in practical work. In the period of nine years which has elapsed since the last major change in the syllabus, more and more has been expected of the student, until it is generally admitted that the nine months' standard course is inadequate. The student is so busy endeavouring to memorise and master the facts which his lecturers are compelled to put before him that he has no time to consider their significance or to acquire that mastery of method which is the aim of true education. The Committee of Inquiry recommended that the course for the Pharmaceutical Chemist and Druggist Qualifying examination should be extended to two years and made similar to that for the Pharmaceutical Chemist Qualifying examination. It would appear that little or nothing can be removed from the Chemist and Druggist course or syllabus. That being so, no educationist will object to the length of the course being extended to two years. I have, however, considerable misgivings regarding the recommendation that the syllabus and examination be similar to that for the present Pharmaceutical Chemist

Qualifying examination. There is danger of a one-year's cram being converted into one of two years for the majority of the students. I trust it will be found practicable and economically possible to give all non-degree pharmaceutical students a two-year post-Intermediate course for a single registrable qualification. The rapid progress of pharmacy and allied sciences would appear, if superficially considered, to necessitate a larger knowledge of facts by the student. There is much to be said for another view. The main aim of the course should be to teach the student how to think, how to educate himself, how to apply scientific method to his studies and how to appreciate the underlying principles. Less lecturing, more tutorial work, more experiment and less "spoonfeeding" in the laboratories and dispensaries are essential. I trust pharmacy will seize with both hands the opportunity which will be presented for giving every pharmacist such an education as will bestow upon him the ability to learn and therefore the power of keeping abreast with the more important advances during all the remaining years of his life. The public, which will become more and more highly educated itself, expects a pharmacist to be a cultured man with wide interests. Although technical skill and knowledge on his part are essential he must be given time during his student years to develop the spirit of inquiry and attitude of mind which are the mark and priceless possession of the educated man.

Pharmaceutical Chemist Examination

Two factors have an important bearing on the future of the Pharmaceutical Chemist qualification as we know it at present. One is the probable extension of the Chemist and Druggist course to two years and the other the rapidly increasing number of students who enter pharmacy via the university degrees. The majority of the students who take the Ph.C. course at present have passed the Pharmaceutical Society's Intermediate examination or Chemist and Druggist Qualifying examination before they realised the advantages of a degree in pharmacy, and do not feel like spending a further year on Intermediate subjects. This mistake has occurred as a rule mainly because they look to their apprentice master for advice, and many pharmacists in retail practice have not familiarised themselves with the more recent changes in the curricula. In the future only two avenues need be available—the first, the extended Chemist and

Druggist course possibly to be known as the Pharmaceutical Chemist course, and the second, the degree courses in pharmacy in the universities. Incidentally, I should deprecate the tendency to regard the Chemist and Druggist qualification as the one for retail pharmacy and the Ph.C. or degree courses as those to be taken by students who wish either to leave or avoid retail pharmacy. Retail pharmacy offers opportunities certainly comparable in all respects with those of the other branches of the profession.

University Degree Courses

About fifteen years ago the Pharmaceutical Society decided to recognise, subject to certain conditions, the training and examinations for university degrees in pharmacy. There can be no doubt that our pharmaceutical legislators of the time acted with great forethought. The pharmacy student is enabled to take a university course leading up to a degree which, whatever its shortcomings, is the best this country has to offer in the way of educative training for life and which is usually regarded as the hall-mark of a general education. In most cases the pharmacy student has close contact with students who are training for the other professions such as medicine, science, law, civil service, etc. He often attends some of the same lectures and works in the same laboratories. This association is of the greatest value to the future pharmacist. We are hoping that in the brave post-war educational world, secondary and university education will eventually be free.

Apprenticeship

I have been able to find in the report of the Committee of Inquiry only a very short reference to apprenticeship. The subject is certainly controversial. There are still a number of pharmacists who are able to give their apprentices a sound training in pharmacy. Such apprentices receive a varied dispensing experience, learn how to make galenicals and how to conduct the business of a pharmacist. If I considered only such apprenticeships I should strongly urge the continuation of the system much as we know it at present. But at the other extreme there is the pharmacist who takes an apprentice and utilises him as a source of cheap labour. If I considered only this type I should say abandon apprenticeship altogether. Between the two extremes there are all kinds of apprenticeship, hence the complexity of the problem.

Apprenticeship immediately following secondary school course gives the student practical taste of the profession he chooses, broadens his outlook upon life, increases his self-reliance. There is a strong body of opinion in favour of apprentices after the Intermediate examination. The main objection to this is that the academic studies of the student are interrupted; he finds it difficult to pick up the threads again. There is much to be said for apprenticeship taken after a qualifying examination has been passed. The student will understand the basic principles upon which the technique of pharmaceutical operations is built. I now come to the length of the apprenticeship. The pharmacist's student career in the future will leave school at eighteen with the equivalent of the Intermediate examination; he will probably have six months' compulsory National Service, and enter the pharmacy school at eighteen-and-a-half to nineteen. Two years for the new Pharmaceutical Chemist or otherwise Chemist and Druggist qualification, and he is about twenty-one. If he takes a degree, as many will, he will be not less than twenty-one and probably twenty-two years of age. Can we demand that he shall serve a three years' apprenticeship? No intelligent youth would dream of entering pharmacy when confronted with such conditions. I feel that the maxima which we shall be able to ask are two years taken before the course for a qualifying examination and one year if afterwards.

Post-graduate Courses and Diplomas

I believe there is a considerable field for exploration as regards post-graduate post-qualification courses. Having received a sound general training in pharmacy and allied subjects it would be advisable for a proportion of the better qualified pharmacists to specialise in certain branches of pharmacy or science. It should be possible for the pharmacy schools to give advanced courses beyond the degree standard in the pharmaceutical subjects of pharmaceutics, pharmaceutical chemistry or pharmacognosy in order that students who wish to specialise may do so. The students who enter retail pharmacy would wish to qualify in such subjects as optics, business knowledge, advanced dispensing technique, etc., and they may be sufficiently interested to take some of the more technical or scientific subjects mentioned above. If the opportunities are offered I have sufficient faith in pharmacy and pharmacists to believe that there will be no lack of entrants.

SCIENCE PAPERS AT THE CONFERENCE

following are summaries of the science papers submitted at the annual meeting of the British Pharmaceutical Conference on July 11:—

The Sterilising Action of Steam Admixed with Air and Other Gases

By R. MAXWELL SAVAGE

The literature on the autoclave contains many conflicting statements concerning the presence of the air which is often present during sterilisation. Sometimes this is due to the complexity of the subject, for air can interfere with practical sterilisation in a number of ways, some of which are not fully recognised. Often, the conflicts arise from the unconventional way, in which technical terms are used by bacteriologists, that scrutiny of the context or a knowledge of the usage of the particular author resolves the conflict. Since steam varies greatly in its action according to its physical state, it is clearly essential that, in experiments designed to test the effect of steam upon sterilisation, the physical state of steam in the various mixtures to be compared shall always be the same. If air is added without regarding the effect which

it may have upon the physical state of the steam, it may happen that the whole of the bacteriological effect observed can be ascribed to an unperceived secondary effect, and none of it to a specific contribution by the air. The author has examined recent literature and made new experiments, from which it is concluded that there is no difference in the sterilising action of pure steam and of steam-air mixtures. Results showing the contrary appear to be due either to faulty technique or interpretation, or to one of the important difficulties which attend the use of an air-steam mixture. There is a very small but significant gain in sterilising efficiency when oxygen is mixed with steam and compared with similar mixtures of steam with hydrogen or nitrogen, which behave alike. (From the laboratories of S. Maw, Son & Sons, Ltd.)

The Protection of Ether Against Peroxide Formation

By ERICH BOEHM and REGINALD WILLIAMS

In an earlier publication, the authors recorded the marked inhibiting action of propyl gallate on the autoxidation of animal and vegetable fats. This paper demonstrates that the ester is also effective in protecting ether from autoxidation. Tests are given for the detection of peroxides in ether. The samples used in the investigations were supplied by three well-known manufacturers of anaesthetic ether in this country. Prior to the experiments, each sample conformed to the tests of purity given in the B.P. for anaesthetic ether. Each series of experiments consisted of a control containing no antioxidant and a number of samples containing different antioxidants, e.g. pyrogallol, hydroquinone and propyl gallate at different concentrations. Glass-stoppered colourless bottles were half filled with the ether solutions to be tested. Some experiments were conducted in direct light and others in diffused light. The samples were examined at intervals for the presence of peroxides according to the official test of the British Pharmacopœia. Three tables are given, which summarise the results obtained on exposing the specimens to direct sunlight. The conditions under which this series of

experiments was carried out are the most drastic to which anaesthetic ether can possibly be subjected. The results illustrate the effectiveness of the various antioxidants and enable a comparison to be made of their stabilising influences. In general, the results indicate that the activity of each antioxidant increases with increasing concentration, though no marked effect is observed in the case of propyl gallate when its concentration is increased from 0.005 to 0.01 per cent. For a given concentration, pyrogallol shows the most powerful inhibiting action. Even under conditions most favourable to the oxidation of ether 0.005 per cent. of propyl gallate effects a powerful inhibiting action. For less drastic conditions of exposure, minute traces of propyl gallate provide excellent protection for ether, a conclusion illustrated by tables which record the results obtained for samples of ether stored in diffused light. Whereas the unprotected ether developed peroxides to a measurable extent in about fourteen days, ethers protected by 0.002 per cent. of propyl gallate were free from peroxides even after 131 days. (From the research department of Nipa Laboratories, Ltd.)

The Stability of Preparations Containing Ethyl Nitrite

By A. H. A. ABBOTT and BETTY H. HOOPER

THERE has always been uncertainty about the keeping properties of any preparation containing ethyl nitrite. Much has been published concerning the stability of spiritus ætheris nitrosi, but as yet pharmaceutical literature has contained no reference to the stability of liquor æthylis nitritis concentratus, which is the subject of a monograph in the Fifth Addendum to the British Pharmacopœia. Liquor æthylis nitritis concentratus is required to contain not less than 17 per cent. w/v and not more than 20 per cent. w/v of ethyl nitrite after storage; and after the container has been opened occasionally the solution must contain not less than 10 per cent. w/v of the ester. It is directed to be kept in small, well-closed containers protected from light, and these should be stored in a cool place. In order to determine the stability under varying conditions of storage, specimens complying with the Pharmacopœial requirements were placed in 4-oz. glass-stoppered amber bottles and kept under the following conditions: (a) On a shelf opposite a sunlit window; (b) on a shelf opposite a shaded window; (c) in a warm cupboard; (d) in a cold cupboard. The bottles were opened from time to time and small quantities of the contents removed, thus approximating

to normal storage conditions. Samples were periodically assayed and the progressive loss of ethyl nitrite is represented in a table. It is seen that the rate of decomposition is relatively slow and is independent of the storage conditions. The effect of adding the liquor to water and to ethyl alcohol (95 per cent.) is shown. It is noted that when liquor æthylis nitritis concentratus is diluted with water at least 50 per cent. of the ethyl nitrite is lost immediately and the authors conclude that the mixture of one volume of the liquor and seven volumes of water, which is the authoritative alternative for spiritus ætheris nitrosi in the Scarce Substances Order, 1942 (S. & O., 1942, No. 709), is an unreliable preparation. The authors show that a solution prepared by dissolving ethyl nitrite in a mixture of isopropyl alcohol and glycerol is more stable than spiritus ætheris nitrosi B.P. 1932, or liquor æthylis nitritis, B.P. 1914. Trials carried out by the authors as described in the present paper have demonstrated that the aqueous mixtures made by the modified preparation contain at least the minimum theoretical proportion of ethyl nitrite. (From the pharmaceutical research department of The British Drug Houses, Ltd.)

Vitamin B in Malt Extract

By JOAN G. ORGAN, EIRENE M. JAMES and FRANK WOKES

IN a communication to last year's Conference it was shown that wide variations may occur in the vitamin B₁ content of malt extract. It was suggested that these variations in food value were due at least in part to differences in malting or brewing conditions. In the present communication attention is paid to two questions arising out of the authors' previous work: (1) How much, if any, of the variations in vitamin B₁ content of malt extract is due to variations in that of the barley and malted barley used? (2) How far are the variations in vitamin B₁ content reflected by variations in content of other B vitamins? Experiments on eleven samples of English barley showed an average loss of 11.8 per cent. of the vitamin B₁ (calculated on dry weight) during malting, individual results ranging from 3.7 per cent. loss to 1.8 per cent. gain. Experiments on fifteen samples of English malt showed an average gain of 16.3 per cent. of the vitamin B₁ (calculated on dry weight) during brewing, individual results

ranging from 19.8 per cent. loss to 5.1 per cent. gain. Experiments which were carried out by the authors on ten samples of English barley tested before and after malting, and after brewing, showed an average gain of 4.1 per cent. in the vitamin B₁ content (calculated on dry weight) from start to finish of the whole process. In twelve commercial samples of malt extract the authors found that the nicotinic acid content ranged from 7.5 to 13.4 mgm. per 100 gm. On the whole, samples richer in aneurine and protein contained more nicotinic acid. Vitamin B₁ was estimated by a modified fluorimetric method which has been found to give satisfactory agreement with the microbiological method described by Schultz, Atkin and Frey. Nicotinic acid was estimated by a modification of Munk's method, which gave fairly satisfactory agreement with the microbiological method of Snell and Wright, with modifications. (From the Ovaltine research laboratories.)

Stability of Adrenaline Solutions: I.—Solutions of Adrenaline Hydrochloride

By H. BERRY and G. B. WEST

MARISING their work, the authors state the effects of variation of temperature, and pH on solutions of adrenaline in hydrochloric acid have been studied in the presence and absence of potassium metabisulphite. The results show two main causes of destruction, one due to oxygen and the other due to heat. pH is an important factor in influencing both rates of destruction. It has been shown by the frog heart method that the loss of activity occurring in solutions of adrenaline in hydrochloric acid which have become pink, can be regained by the addition of potassium

metabisulphite. It is suggested that the optimum conditions for stability and storage of solutions of adrenaline in hydrochloric acid when enclosed in ampoules with a small amount of air are (a) a pH of approximately 4.2 and (b) the presence of 0.1 per cent. of potassium metabisulphite. Solutions of adrenaline in hydrochloric acid, having a pH of 4.2 and containing 0.1 per cent. of potassium metabisulphite, may be sterilised by autoclaving (115° C. for thirty minutes), when enclosed in ampoules containing a small quantity of air. (From the College of the Pharmaceutical Society.)

A Note on the Hydrolysis of Diamorphine Hydrochloride in Aqueous Solution

By GEORGE A. STOREY

THE discovery of fairly large amounts of diamorphine in an injection solution of diamorphine hydrochloride which was some years old, led to this investigation of the rate of hydrolysis of diamorphine in aqueous solution. The amount present in an injection solution examined far exceeded the 1.5 per cent. of morphine allowed by the British Pharmacopœia in diamorphine hydrochloride. Goris and Armstrong showed that the decomposition of diamorphine hydrochloride in aqueous solution was increased by warming and

on keeping and that the decomposition occurred in two definite stages. They were of the opinion that injection solution of diamorphine hydrochloride would not keep longer than three or four months. The author found that the rate of hydrolysis of diamorphine hydrochloride in aqueous solution shows a continuous and steady increase. The effect of various sterilisation methods was studied. Heating at 160° hydrolysed at least one-half of the diamorphine present. (From the laboratories of Allen & Hanburys, Ltd.)

Biological Assays of Simple Adrenaline Solutions by the Cat and Frog Heart Methods

By H. BERRY, E. SHOTTON and G. B. WEST

THE biological assay of adrenaline solutions is usually performed using the vasopressor action on a spinal cat or dog, or the inhibitory action on an isolated rabbit intestine. Heated frog hearts have also been utilised; an assay by the latter method has a standard error of 2.17 per cent. This paper presents results of assays carried out by the cat and frog heart methods on solutions of adrenaline. Solutions of adrenaline, B.P., were first compared with a similar solution containing 0.1 per cent. of potassium metabisulphite. The results are recorded, and heated solutions having activity of 100 per cent. The solution containing metabisulphite showed a much smaller loss of activity, and was therefore chosen as the standard for the frog heart assays. The authors state that all the solutions were assayed after heating except when metabisulphite was present. Unheated solutions with pH values higher than 4.0 colour quickly

if left in the air for some time without metabisulphite, but the loss in activity is not great. For the cat assays, therefore, a small error was involved at these pH values as the standard for reference was the activity of the unheated control solutions. This error did not arise in the frog heart assays, as the standard was a stable solution which did not colour on standing and which did not lose activity between tests. The authors conclude that assays by the frog heart method of heated adrenaline solutions give results comparable with those obtained by the standard cat method. The optimum pH for maximum stability of adrenaline solutions heated in ampoules with a small amount of air is approximately 4.2. Potassium metabisulphite 0.1 per cent. does inhibit the loss of activity when adrenaline solutions are autoclaved in ampoules. (From the College of the Pharmaceutical Society.)

(To be continued)

TRADE REPORT

Spot quotations for pharmaceutical chemicals, crude drugs and essential oils represent the prices for wholesale quantities of standard quality. C.i.f. quotations do not include marine war risk insurance and other abnormal charges payable in the present emergency.

28 Essex Street, W.C.2, July 12

CONDITIONS in the London drug and chemical markets have remained quiet during the past week, with most of the orders calling for minimum quantities of goods. Prices show little variation from last quotations, and the general tone is firm. Little of interest has occurred in PHARMACEUTICAL CHEMICALS and, except in one of the minor IODIDES, no price changes have been announced. The CRUDE DRUGS markets have experienced another quiet week, most of the orders received being for modest quantities required for immediate consumption. The price level remains steady, alterations being confined to small amounts either way. CURAÇAO ALOES continues firm, but no Cape is available. Ceylon ARECA NUTS are quoted at about 10s. per cwt. lower. BALSAMS are steady. CARDAMOMS are quiet, and without quotable change on the week. The price of CLOVES is firmer. The forward price of ERGOT has an upward tendency, obviously the result of buying on new allocations. GUM ACACIA is firm but without price alteration. KAMALA is dearer on the spot. MENTHOL is wanted, but stocks are difficult to locate. RHUBARB remains in good request, with the recent higher prices well maintained. SEEDS are quiet and unchanged. TRAGACANTH is quiet, with prices of medium grades unaltered. Some demand has been received for TURMERIC, which is dearer on the spot. No changes of interest have occurred in either ESSENTIAL OILS or synthetic products during the week under review. The Ministry of Food has authorised an increase in the prices of certain fatty acids, as a result of a recent advance in the selling price of crude LINSEED OIL. ANISE (STAR) and PEPPERMINT remain nominal, with supplies exceedingly difficult to find. English distilled CLOVE and NUTMEG are unchanged.

Pharmaceutical Chemicals

AMPHETAMINE.—Current price quoted by makers is steady at 150s. per lb.

ASPIRIN.—Demand continues fair, with prices unchanged. Currently quoted rates per lb., in quantities of 28 lb.—1 cwt., are as follows (containers in brackets): 4s. (1-lb.); 3s. 10½d. (4-lb.); 3s. 9½d. (7-lb.); 3s. 9d. (14-lb.); 3s. 8½d. (28-lb.).

BORAX.—Makers' current rates are as follows: B.P. quality, granulated, £42 per ton; crystal £43; powder, £43 10s. Packed in one-cwt. bags delivered carriage paid in Great Britain in or ton lots and upwards. Commercial grades, per ton less.

BRUCINE.—Current rates per oz. are as follows: ALKALOID.—Under 25 oz., 1s. 4½d. 25 oz. and under 100 oz., 1s. 4d.; 100 oz. and under 500 oz., 1s. 3½d. NITRATE AND SULPHATE.—Under 25 oz., 1s. 3½d.; 25 oz. and under 100 oz., 1s. 3d.; 100 oz. and under 500 oz., 1s. 2½d.

DEXTROSE.—Current prices per lb., in lots of 28 lb.—1 cwt., are as follows (containers in brackets): 1s. 2½d. (1-lb.); 1s. 1½d. (2-lb.); 1s. 0¾d. (4-lb.); 11½d. (7-lb.); 11½d. (14-lb.); 10¾d. (28-lb.).

MAGNESIUM CARBONATE, HEAVY.—Make quote for the home trade the following price per lb. in quantities of 28 lb.—1 cwt. (containers in brackets): 1s. 6½d. (1-lb.); 1s. 5d. (4-lb.); 1s. 4d. (7-lb.); 1s. 3½d. (14-lb.); 1s. 3d. (28-lb.). Prices net one month.

PHENOLPHTHALEIN.—Makers' prices are steady as follows: Less than 7 lb., 4s. 6d. per lb.; 7 lb., 4s. 5d.; 14 lb., 4s. 4d.; 28 lb., 4s. 3d. 1 cwt., 4s. 2d.

SANTONIN.—Home-trade prices are as follows: 10 kilos and over, £62; not less than 5 kilos £63; 2–4 kilos, £64; 1 kilo, £65; 500 gm., £66; 250 gm., £67; 100 gm., £68; less than 100 gm. £69 per kilo. Carriage paid in United Kingdom.

VANILLIN.—Current rates per lb. are as follows: 5 cwt., 21s. per lb.; 1 cwt., 21s. 3d. 56 lb., 21s. 6d.; less than 56 lb., 21s. 9d.

Crude Drugs

ALOES.—CURAÇAO is firm on spot at 450s. per cwt.

ARECA NUTS.—Ceylon, wormy, spot, 105s. per cwt., ex store.

BALSAMS.—Peru remains steady on spot at 7s. 9d. per lb., and Canada at 10s. Tolu and Copaiba are unobtainable.

BUCHU LEAVES.—Limited supplies are quoted at 5s. 3d. per lb.

CAMPHOR.—Chinese crude, in small compass on spot, 10s. per lb., to approved users; similar quantities of B.P., 11s. 6d.

CARDAMOMS.—Little interest in this item, prices unchanged. Aleppy greens, spot, 5s. 6d. per lb.; Aleppy seed, 6s. 6d.; split seed, 5s. 6d.

CLOVES.—Spot price of Zanzibar is now 1s. 4d. per lb.; to arrive, unquoted.

COCOA BUTTER.—Except under Ministry of Food licence, sales prices are fixed at 1s. 5½d. per lb., ex factory or warehouse.

POLOCYNTH.—Fair white pulp is offered on at 2s. 10½d. per lb.

DIGITALIS LEAVES.—Portuguese leaves, spot, s. per cwt.; English-grown leaves, 2s. 6d. lb.

DRAGON'S BLOOD.—Zanzibar drop, in limited compass on spot, £25 per cwt.; no other types are offered.

ERGOT.—New allocations and the consequent tendency towards considerable buying have resulted in a price increase at origin; 6s. 3d. lb., landed terms, seems to be the current level, even for old crop.

GUM ACACIA.—Kordofan cleaned sorts, steady spot at 80s. per cwt.; bleached, shipment, s., c.i.f. Talha, cleaned, 50s. per cwt., ded.

JENBANE.—Indian leaf, spot, 250s. to 275s. cwt., according to holder; some low-testing material is quoted at 1s. per lb., and Russian at 350s. per cwt.

LABORANDI.—No change in the spot price of 6d. per cwt., but available supplies are all.

KAMALA.—Material with 6 per cent. ash would be valued at 2s. per lb.

LIQUORICE ROOT.—Russian root, for pharmaceutical purposes, 85s. per cwt.; small supplies of single-peeled Syrian, spot, 110s. per cwt., subject to D.M.S. approval.

MENTHOL.—In good demand, but supplies difficult to find.

MYRRH.—Any available spot supplies of good sorts would be worth £20 per cwt.

PIMENTO.—Sellers on spot at 1s. 4½d. per lb.

RHUBARB.—Remains in good demand, with high-round on spot priced at 10s. 6d. to 11s. lb. Shensi, irregular shapes, 14s.

SEEDS.—Quiet and unchanged. Current prices are as follows: **CORIANDER.**—Indian, 1s. per cwt. **CUMIN.**—Maltese, spot, 105s.; Italian, 100s. **DILL.**—125s., ex wharf. **FENNEL.** Offered at 85s. **FENUGREEK.**—May be had 80s. **MUSTARD.**—Controlled prices are changed.

SENNA.—Alexandrian medium pods are at 10s. per lb.; Tinnevely, manufacturing grade, 10s. to 6½d.; hand-picked, 8½d. to 1s.; broken Alexandrian leaves, 1s. 3d. to 1s. 4d.; siftings, 2d.; Tinnevely, No. 1, 9d. to 10½d.; No. 2, 7½d.; No. 3, 5½d. to 6d.

TRAGACANTH.—Demand continues fair. Prices the medium grades are unchanged as follows: No. 1, white, £130 per cwt.; No. 2, white, £115; No. 3, white, £100; No. 4, white, £85; pale leaf, 60; amber leaf, £50; dark amber, £40; brown leaf, £30; red-and-brown leaf, £25; red leaf, 10s. £20; hoggy, £12 to £15.

TURMERIC.—In better demand, with prices increased. Madras finger, sound-quality, spot, s. 6d. per cwt., London; 55s., Liverpool; s. 6d., Glasgow.

VALERIAN ROOT.—Indian root is quoted on spot at 95s. per cwt.

Essential and Expressed Oils

ANISE (STAR).—Unchanged, with the price nominal at 160s. per lb.

BAY.—Spot, if available, approximately 12s. per lb.

CASTOR.—Official quotation for firsts is £92 per ton, and that for seconds, £90, both naked ex works, in bulk quantities.

CINNAMON.—Any available spot supplies of leaf oil would bring in around 13s. 9d. per lb.

CLOVE.—No change in English distillers' prices at 11s. 6d. to 12s. per lb., according to quantity.

COCONUT.—Bulk quantities of refined deodorised are officially priced at £49 per ton, and refined hardened deodorised at £53.

COTTONSEED.—Controlled prices for bulk supplies are as follows: Crude, £52 2s. 6d.; washed, £55 5s.; refined edible, £57; refined deodorised, £58 per ton; all varieties quoted naked ex works.

EUCALYPTUS.—Small supplies of 70 to 75 per cent. oil are quoted on spot at around 7s. 6d. per lb.

GINGERGRASS.—In small compass on spot at approximately 22s. 6d. per lb.

GROUNDNUT.—Bulk supplies are officially priced as follows: Refined deodorised, £58 per ton; refined hardened deodorised, to 40°, £62; refined hardened deodorised, to 50° to 52°, £63; all naked ex works.

LINSEED.—The official bulk price of crude has been advanced by £2 per ton to £62 per ton, naked ex works.

The following new maximum prices have been announced for linseed oil fatty acids: split, £72; distilled, £83 7s. per ton, naked ex works.

NUTMEG.—English distillers quote at 35s. per lb., with lower rates for quantities.

OLIVE.—Edible oil is quoted at 25s. 9d. per gallon (9 lb.) ex store.

PALMAROSA.—Small quantities are available at approximately 55s. per lb.

PEPPERMINT.—In good demand; price nominal at 190s. per lb.

RAPESEED.—Bulk lots are officially quoted at £85 per ton, naked ex works.

COMING EVENTS

Sunday, July 16

MANCHESTER PHARMACEUTICAL ASSOCIATION. Ramble from Romily to Higher Poynton. Meet London Road Station, 9.30 a.m. Book Higher Poynton return.

Book Famine.—The Publishers' Association has issued a memorandum drawing attention to the acute shortage of paper available for book publishing. The quota for the trade (⅔ of pre-war use) is an indication of the acute need of waste paper in arms production. Save yours for salvage.

MISCELLANEOUS INQUIRIES

Sodium Fluoride as Insecticide.—J. O. H.

Sodium fluoride is a good poison for insects (cockroaches, etc.), and is the active ingredient in many ant exterminators. Its use for this purpose has led to a number of cases of human poisoning, but no records seem to have been kept of the minimum fatal dose in man and domestic animals. Sodium fluoride is dangerous especially if the epidermis is broken, and is not recommended for application to the skin. A reliable and safe insect powder for dogs is:—

Boric acid	1
Sulphur	1
Naphthalene	1
Pyrethrum or derris ..	4

Preventing Rust on Steel.—C. B.—All

the products you mention have the mechanical effect of producing a coating through which the oxygen of the air cannot penetrate to oxidise the iron. The coal tar naphtha and the kerosene also help by penetrating minute chinks in the metal, which otherwise might be exposed to the air, and are thus useful as solvents for the fats. The chief advantage of lanolin is its tenacity, as it forms a very adherent film. Syrupy phosphoric acid is a solvent of rust, forming a phosphate of iron which is soluble in excess of the acid.

Male Fern for Dogs.—K. H. M.—Ext.

filicis liq. is often uncertain in its action on dogs, and apt to cause nausea. When it is decided to give such an agent, it is advisable to administer a capsule of chlorbutol half an hour before giving the vermifuge. It is inadvisable to dose a dog which is feverish or suffering from distemper, as this may lead to enteritis. Tapeworms can be ejected by means of pulv. arecae, any apparent failure being usually due to old powder. Freshly grated powder is best, gr. 2 for each lb. weight of the dog, to a maximum of dr. 2.

Crab Lice.—B. L.—The usual methods of

dealing with these troublesome pests involve the necessity of shaving, with considerable discomfort to the individual. Organic thiocyanates have for some time been used with good effect against lice on the head and body and are equally effective against the crab lice (*Phthirus pubis*). Lauryl thiocyanate is the least irritant, especially as an emulsion. Melt 1 part of Lanette wax S.X. with $2\frac{1}{2}$ parts of lauryl thiocyanate to 70°C ., pour into $4\frac{1}{2}$ parts of water, also at 70°C ., and stir till cold. One application only (about dr. 3) is usually required. The clothing and bedding should also be disinfected.

TRADE MARKS

(From "The Trade Marks Journal," June 1906.)

- "VENUSINE"; for dyes for the hair (3). M. Paillard, 14 Buckingham Palace Road, London, S.W.1. 625,902.
- "LADYE JAYNE"; for perfumery, non-medicated toilet preparations, powder and ro boxes, cosmetics, dentifrices, face pow and essential oils (3). By Jarrett, Rain & Laughton, Ltd., Lower Essex Str Birmingham, 5. 627,260 (Associated).
- "TANZOIA"; for make-up, make-up remo and for preparations for alleviating sunb and for tanning the skin (3). By E. Ratcl 14 Ealing Road, Wembley. 627,619.
- "B.W." and "B. & W."; for all goods (5). The Wellcome Foundation, Ltd., 183 Euston Road, London, N.W.1. B623,279 (Associated).
- "KOLA-RIK"; for medicated wines contain cola (5). By Rikola, Ltd., 31 St. Joh Hill, London, S.W.11. 625,145 (Associat
- "QUASONA"; for pharmaceutical preparat and substances (5). By Ashe Laborator Ltd., 120-22 Victoria Street, London, S.W 627,351.
- "INTA"; for pharmaceutical preparations substances for human and veterinary (excluding insecticides, etc.) and for b dages (5). By The International Colour Hardware Co., Ltd., 2 Broad Street Pl London, E.C.2. 627,768.
- "DISCOLANAE"; for medicated ointments human use prepared from wool fat (5). Blackwell, Hayes & Co., Ltd., 51 M Street, Birmingham, 4. B627,844.
- "SHADFORTH"; for pharmaceutical preparat and substances (5). By Shadforth I scription Service, Ltd., 63 Grove Road, B London, E.3. 627,847.
- "SYNDRUM"; for pharmaceutical preparat for human and veterinary use (5). Bureau of Insemination, Ltd., 9 Car Road, Burnley, Lancs. 628,218.
- "JESTABS"; for pharmaceutical preparati etc., for human and veterinary use, sanit goods, infants' and invalids' foods, a septic, disinfectants and weed and ver destroyers (5). By Jest, Ltd., 250 A Avenue, Trading Estate, Slough, Bu 628,339 (Associated).
- "SQUASSA"; for medicated lemon, oral grape fruit and lime squashes (5). By Ho Hoseason & Co., Ltd., Sun Buildings, Bri Street, Manchester. B628,416.

"C. & D." Quiz No. 32.—The answers to questions on p. 57 are: 1. Jonathan Pere 2. Ferric ferrocyanide (Prussian blue). 3. monium chlorostannate. 4. Hydrated m ganese dioxide. 5. Albertus Magnus (A.D. 12 6. Resinous exudation of *Pistacia Lentis* 7. Nitrogen. 8. L. J. Thenard, 1818. 9. A to where salt was mined. 10. Triplumbic tetrox Pb₃O₄, red lead.

In Quiz No. 30 (C. & D., June 17, p. 6 "basic copper sulphate" should read "cop oxyacetate."

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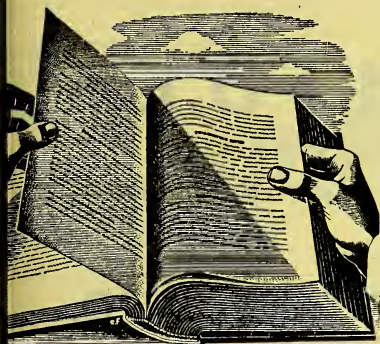
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mystery story

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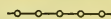
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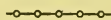
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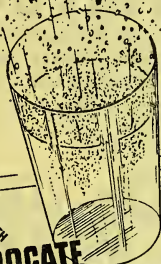
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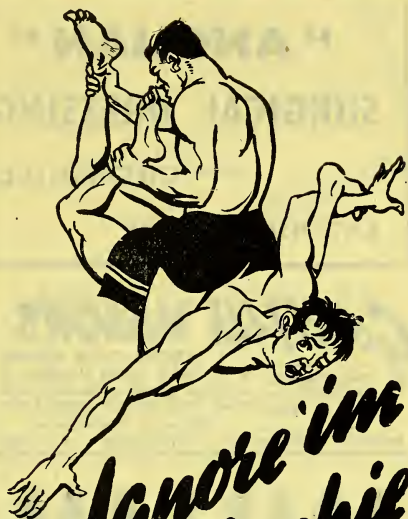
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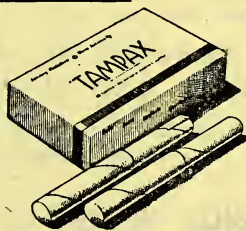
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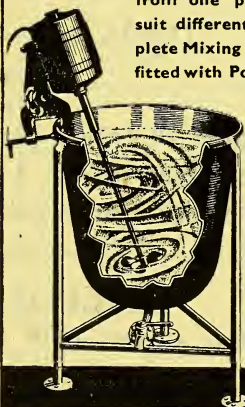
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JULY 15
1944

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